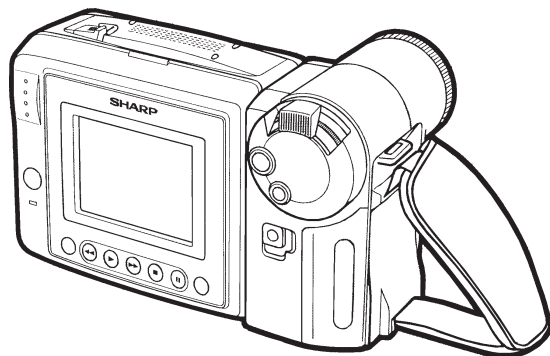


SHARP SERVICE MANUAL

SY1VL-A111U//

LIQUID CRYSTAL CAMCORDER Hi 8 NTSC



VL-A111U
VL-AH131U
VL-AH151U
MODELS VL-AH161U

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified be used.

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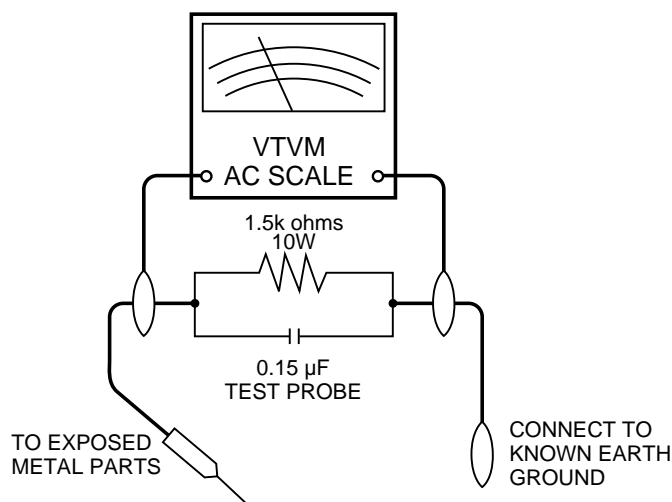
1. IMPORTANT SERVICE NOTES

BEFORE RETURNING THE VIDEO CAMERA RECORDER

Before returning the video camera recorder to the user, perform the following safety checks.

1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the video camera recorder.
2. Inspect all protective devices such as non-metallic control knobs, insulating materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor/capacitor networks, mechanical insulators etc.
3. To be sure that no shock hazard exists, check for leakage current in the following manner.
 - Plug the AC line cord directly into a 120 volt AC outlet (Do not use an isolation transformer for this test).
 - Using two clip leads, connect a 1.5k ohm, 10 watt resistor paralleled by a 0.15 μ F capacitor in series with all exposed metal cabinet parts and a known ground, such as a water pipe or conduit.
 - Use a VTVM or VOM with 1000 ohm per volt, or higher sensitivity or measure the AC voltage drop across the resistor (See Diagram).
 - Move the resistor connection to all exposed metal parts having a return path to the chassis (antenna

connections, metal cabinet, screw heads, knobs and control shafts, etc.) and measure the AC voltage drop across the resistor. Reverse the AC plug (a non polarized adaptor plug must be used but only for the purpose of completing these checks) on the set and repeat the AC voltage measurements for each exposed metallic part. Any reading of 0.45V rms (this corresponds to 0.3mA rms AC.) or more is excessive and indicates a potential shock hazard which must be corrected before returning the video camera recorder to the user.



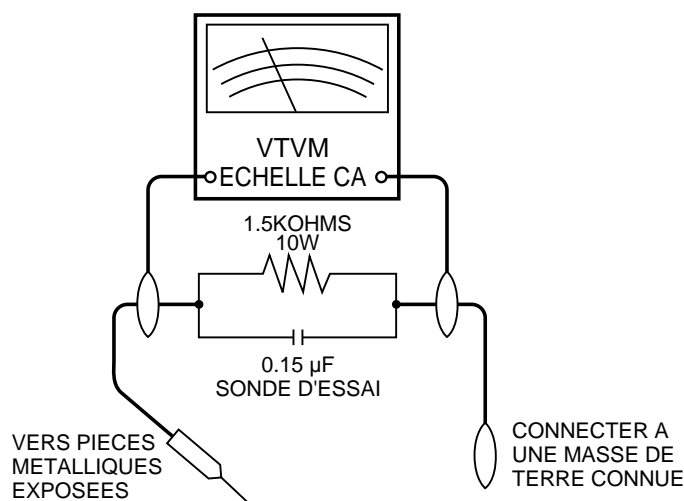
1. NOTES DE SERVICE IMPORTANTES

AVANT DE RENDRE LE MAGNETOSCOPE

Avant de rendre le magnétoscope à l'utilisateur, effectuer les vérifications de sécurité suivantes.

1. Vérifier toutes les gaines de fil pour être sûr que les fils ne sont pas pincés ou que le matériel n'est pas coincé entre le châssis et les autres pièces métalliques dans le magnétoscope.
2. Vérifier tous les dispositifs de protection tels que les boutons de commande non métalliques, les matériaux d'isolement, le dos du coffret, les couvercles de compartiment et ajustement ou les boucliers, les réseaux de résistance / condensateur d'isolement, les isolateurs mécaniques, etc.
3. Pour être sûr qu'il n'y a aucun risque de choc électrique, vérifier le courant de fuite de la manière suivante.
 - Brancher le cordon d'alimentation secteur directement dans une prise de courant de 120 volts. (Ne pas utiliser de transformateur d'isolement pour cet essai).
 - Utiliser deux fils à pinces et connecter une résistance de 10 watts 1,5 kohm en parallèle avec un condensateur de 0,15 μ F en série avec des pièces du coffret métallique exposées et une masse de terre connue telle qu'un tuyau ou un conduit d'eau.
 - Utiliser un VTVM ou VOM avec une sensibilité de 1000 ohms par volt ou plus ou mesurer la chute de tension CA entre la résistance (voir diagramme).
 - Déposer la connexion de la résistance à toutes les pièces métalliques exposées ayant un parcours de

retour au châssis (connexions d'antenne, coffret métallique, têtes de vis, boutons et arbres de commande, etc.) et mesurer la chute de tension CA entre la résistance. Inverser la fiche CA (une fiche intermédiaire non polarisée doit être utilisée à seule fin de faire ces vérifications.) sur l'appareil et répéter les mesures de tension CA pour chaque pièce métallique exposée. Toute lecture de 0,45 V rms (ceci correspond à 0,3 mA rms CA) ou plus est excessive et signale un danger de choc qui doit être corrigé avant de rendre le magnétoscope à son utilisateur.



WARNING : TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO WET LOCATIONS.



CAUTION

**RISK OF ELECTRIC SHOCK
DO NOT OPEN**



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK. DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol warns the user of uninsulated voltage within the unit that can cause dangerous electric shocks.

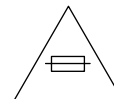


This symbol alerts the user that there are important operating and maintenance instructions in the literature accompanying this unit.

CAUTION

This symbol mark means following.
For continued protection against fire hazard, replace only with same type fuse.
(CP901; 2.5A 64V, CP902; 2.5A 64V, CP903; 2.5A 64V)

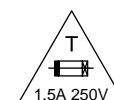
Camcorder only



CAUTION

This symbol mark means following.
"RISK OF FIRE—
REPLACE FUSE AS MARKED."
(F101; 2A 250V)

AC Adapter only



ATTENTION: POUR REDUIRE LES RESQUES D'INCENDIE OU DE CHOC ELECTRIQUE, NE PAS EXPOSER CET APPAREIL A LA PLUIE OU A L'HUMIDITE.



ATTENTION

**RISQUE DE CHOC ELECTRIQUE
NE PAS OUVRIR**



ATTENTION: AFIN DE REDUIRE LES RISQUES DE CHOC ELECTRIQUE, NE PAS RETIRER LE COUVERCLE, AUCUN ORGANE INTERNE NE PEUT ETRE REPARÉ PAR L'UTILISATEUR, CONFIER L'APPAREIL A UN DEPANNEUR QUALIFIE.



Ce symbole signale à l'utilisateur la présence d'une tension non isolée à l'intérieur de l'appareil qui peut être la cause de secousses électriques dangereuses.

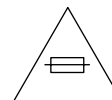


Ce symbole avertit l'utilisateur que des instructions importantes relatives à l'utilisation et à l'entretien se trouvent dans le manuel accompagnant l'appareil.

ATTENTION

Ce symbole signifie que l'on devra utiliser un fusible de même type (CP901; 2,5A 64V, CP902; 2,5A 64V, CP903; 2,5A 64V) pour assurer la sécurité.

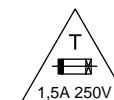
Camcorder seulement



ATTENTION

La signification de ce symbole est la suivante.
"RISQUE D' INCENDIE – REMPLACEZ LE FUSIBLE SELON L' INDICATION."
(F101; 2A 250V)

Adaptateur CA seulement



 **CAUTION**
BEFORE BATTERY DESTROY

■ NICKEL-CADMIUM BATTERY

The following program is available in the United States. Please consult local environmental authorities concerning the availability of this or other programs in your area.

The RBRC™ Seal

SHARP participates in the RBRC™* Nickel-Cadmium Battery Recycling Program in the United States. The RBRC™ Seal on our battery pack contained in our product indicates that SHARP is voluntarily participating in an industry program to collect and recycle these batteries. The RBRC™ program provides you with a convenient alternative to placing spent Nickel-Cadmium battery packs into the trash or municipal waste stream, which is illegal in some areas. At the end of their useful life, the Nickel-Cadmium battery can be dropped off at the nearest collection center for recycling. For information on the nearest collection center, call 1-800-8-BATTERY or your local recycling center. If you are located outside the United States, contact your local authorities for information concerning proper disposal and/or recycling of this battery. SHARP's involvement in this program is part of our commitment to protecting our environment and conserving natural resources.

[Footnote] *RBRC™ is trademark of the Rechargeable Battery Recycling Corporation.

■ NICKEL-METAL HYDRIDE BATTERY

■ LITHIUM or LITHIUM-ION BATTERY

■ SEALED LEAD BATTERY

Battery disposal

Contains the above (Rechargeable) Battery. Must be recycled or disposed of properly.

Remove the Battery from the products and contact Federal or State Environmental Agencies for information on recycling and disposal options.

2. SPECIFICATIONS

Signal System: NTSC standard
 Recording System: 2 rotary heads, helical scanning system
 Cassette: 8 mm video tape, MP type
 Recording/Playback Time: 120 minutes (P6-120)
 Tape Speed: 14.345 mm/second
 Pickup Device: 1/4" (6.4mm, effective size: 4.5 mm) CCD image sensor (with approx. 270,000 pixels including optical black)
 Lens: 16 × power zoom lens (F1.4, f=4.0-64.0 mm), and full-range auto focus
 Lens Filter Diameter: 46 mm
 Monitor: VL-A111U/AH131U/AH151U : 3" (7.5 cm)
 VL-AH161U : 3.5" (8.8 cm) full-color LCD screen (TFT active matrix)
 Microphone: Electret monaural microphone
 Color Temperature Compensation: Auto white balance with white balance lock
 Minimum Illumination: 0.8 lux (5 lux measured by EIA standard)(with gain-up, F1.4)
 Video Output Level: 1.0 Vp-p 75-ohm unbalanced
 Audio Output Level: -8 dBs, impedance less than 2.2 kohms
 Speaker Output: 200 mW
 Power Requirement: DC 3.6V (with battery pack)
 DC 7.0V (with AC adapter)
 Power Consumption: VL-A111U/AH131U/AH151U : 5.1W
 VL-AH161U : 5.2W (during camera recording in full auto mode with zoom motor off and backlight in normal mode)
 Operating Temperature: 32°F to 104°F (0°C to + 40°C)
 Operating Humidity: 30% to 80%
 Storage Temperature: -4°F to 140°F (-20°C to +60°C)
 Dimensions (approx.): 7 ⁷/₃₂" (W) × 4 ⁹/₃₂" (H) × 3 ⁷/₈" (D)
 [183 mm (W) × 109 mm (H) × 99 mm (D)]
 Weight (approx.): VL-A111U/AH131U/AH151U : 1.57 lbs (710g)
 VL-AH161U : 1.58 lbs (715g)
 (without battery pack, lithium battery, video cassette, and lens cap)

AC Adapter/Battery Charger UADP-0340TAZZ

Power Requirement: AC 110-240 V, 50/60 Hz
 DC Output: 7.0 V
 (CANADA AC120V only)
 Power Consumption: 15 W
 Dimensions (approx.): 2 ¹¹/₁₆" (W) × 1 ¹⁵/₃₂" (H) × 5 ¹/₈" (D)
 [68 mm (W) × 37 mm (H) × 130 mm (D)]
 Weight (approx.): 0.51 lbs (233 g)

Battery Pack BT-H22

DC Output: 3.6V
 Dimensions (approx.): 2 ¹/₈" (W) × ³/₄" (H) × 2 ⁷/₃₂" (D)
 [54 mm (W) × 19 mm (H) × 56 mm (D)]
 Weight (approx.): 0.30 lbs (136 g)

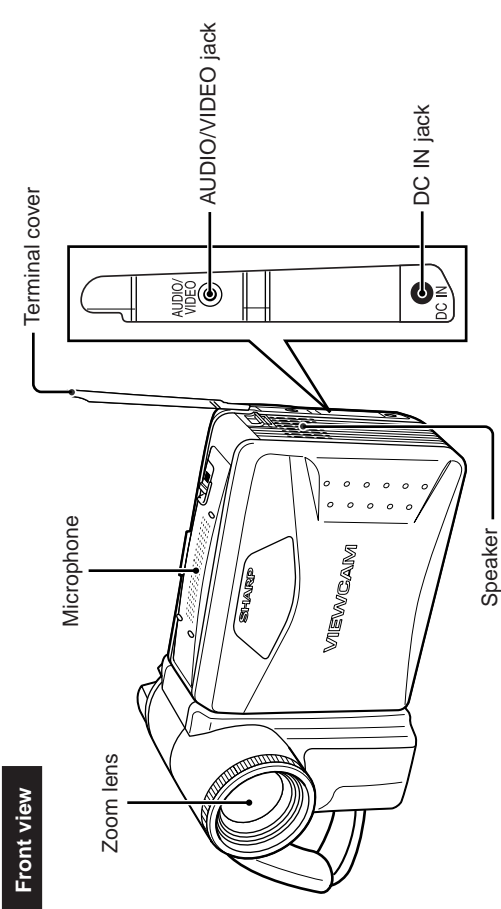
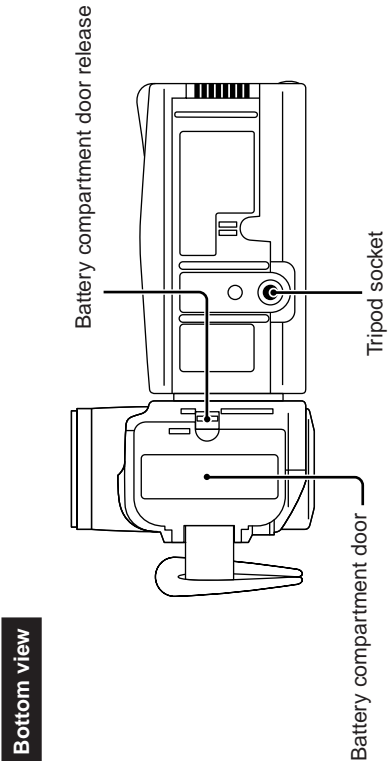
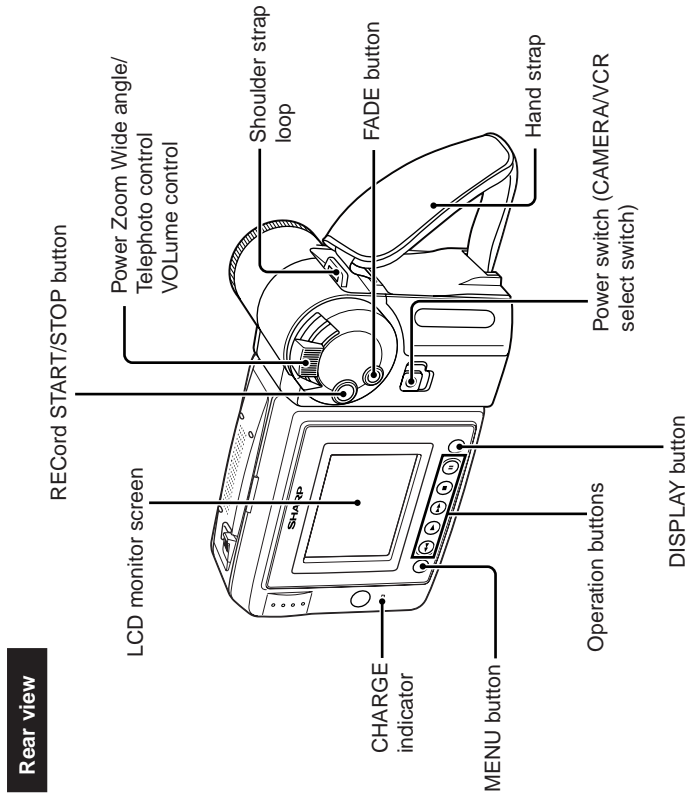
Specifications are subject to change without notice.

SERVICE INFORMATION (For the U.S.)

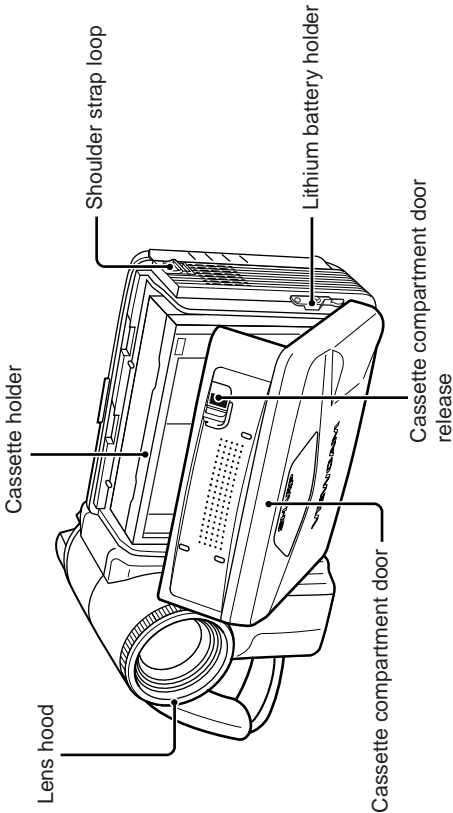
For the location of the nearest Sharp Authorized Service, or to obtain product literature, accessories, supplies or customer assistance, please call 1-800-BE SHARP (1-800-237-4277) or visit SHARP's website (<http://www.sharp-usa.com>).

3. PART NAMES AND FUNCTION

For details on the use of each control.



When the cassette compartment door is open

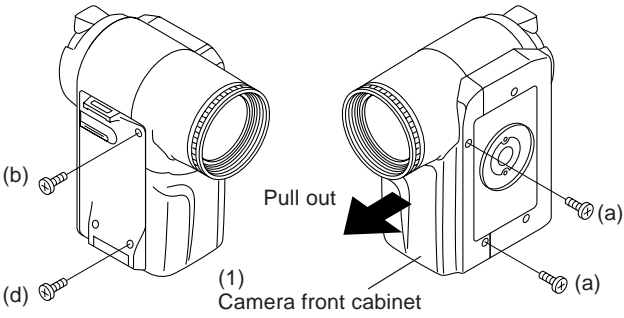
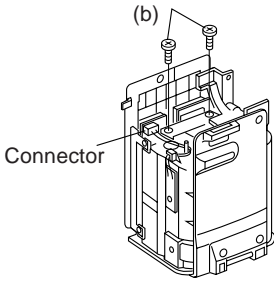
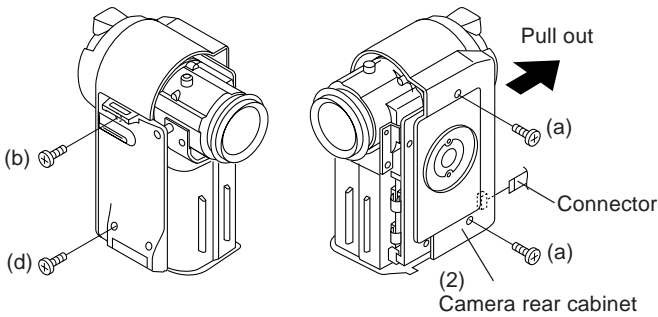
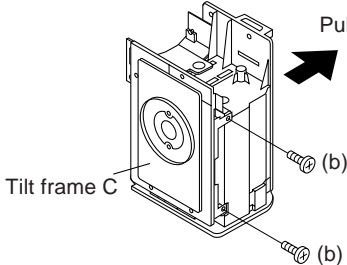
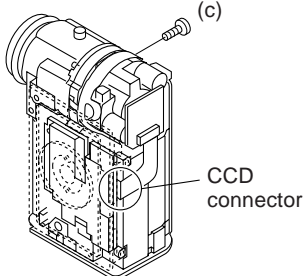
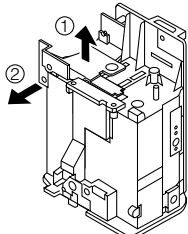
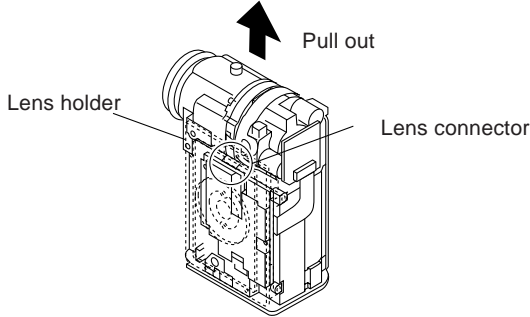
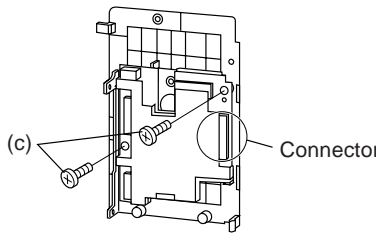
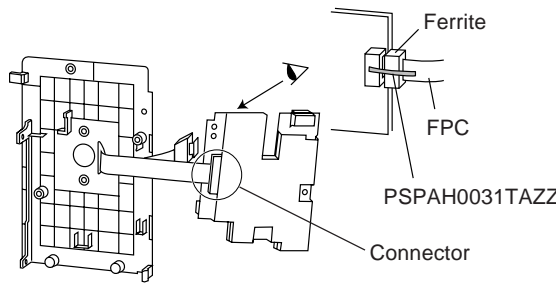


4. DISASSEMBLY OF THE SET

4-1. REMOVAL OF THE CAMERA SECTION

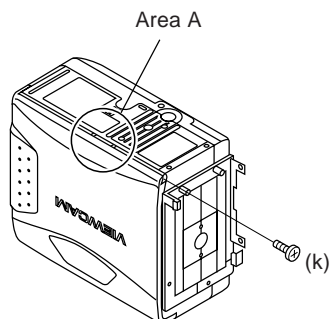
Note:

Before removing the cabinet, turn off the power supply, and ascertain that the battery has been removed.

 <p>1. Remove one screw ((d)XiPSF20P04000), one screw ((b)LX-HZ0018TAFF), two screws ((a)LX-HZ0018TAFN), and pull out the camera front cabinet (1).</p>	 <p>5. Remove the connector of the 6-cell detection switch, and remove two screws ((b)LX-HZ0018TAFF) fixing the battery catcher.</p>
 <p>2. Remove one screw ((b)LX-HZ0018TAFF), one screw ((d)XiPSF20P04000) and two screws ((a)LX-HZ0018TAFN) and pull out the camera rear cabinet (2) backwards. Remove the FPC in the camera rear cabinet.</p>	 <p>6. Remove two screws ((b)LX-HZ0018TAFF) and pull out the camera side cover from the tilt frame C.</p>
 <p>3. Firstly, remove the CCD connector from the Camera PWB, then remove one screw ((c)LX-HZ0045TAFN), on the reverse side in this figure (do not remove the lens holder in this section).</p>	 <p>7. Remove the battery catcher from the camera side cover.</p>
 <p>4. Pulling the lens holder, pull out the lens upwards. Then, remove the lens connector.</p>	 <p>8. Remove one connector of the camera PWB, and remove two screws ((c)LX-HZ0045TAFN) fixing the PWB.</p>  <p>9. After removing the camera PWB from the tilt frame C, remove the connector on the rear of the PWB.</p>

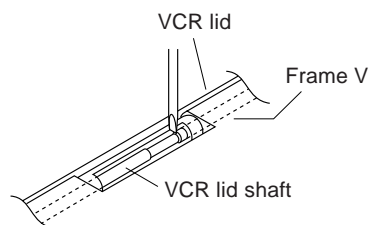
4-2. DISASSEMBLY OF THE VCR MAIN BODY

<1. Removal of the VCR lid shaft>

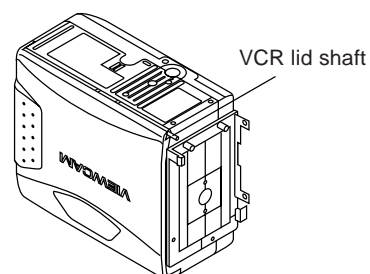


(1) Remove one screw ((k)LX-HZ0063TAFN).

<Detail of area A>

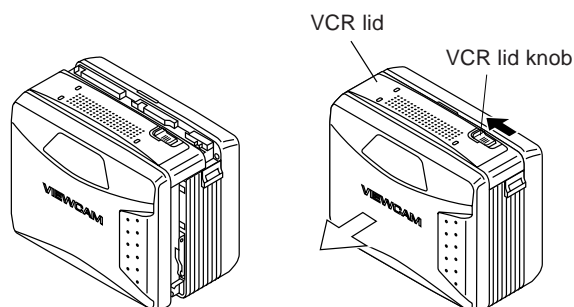


(2) The jig (example: slotted precision screwdriver) into contact with the removal groove of the VCR lid shaft, and slide the screwdriver with care to prevent damaging the VCR lid and frame V.

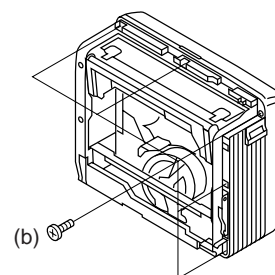


(3) Pull out the VCR lid shaft head which projects beyond the surface of the VCR lid.

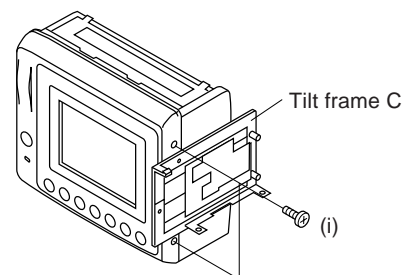
<2. Disassembly of the cabinet L>



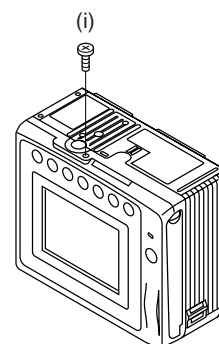
(1) Slide the "VCR lid knob" in the arrow direction, and slide the VCR lid in the arrow direction as far as the cabinet L fastening screw is visible. (Left figure) Since the connector of the microphone is still connected, take care to prevent excessively sliding the VCR lid.



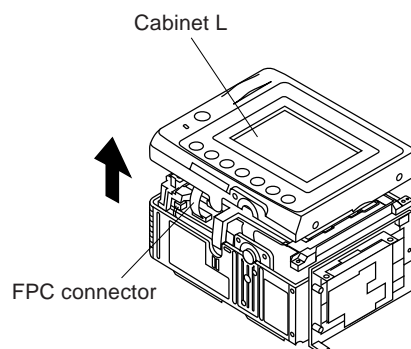
(2) Remove five screws ((b)LX-HZ0018TAFF).



(3) Turn the tilt frame C so that the screwdriver can be easily inserted, and remove two screws ((i)XiPSN20P04000).

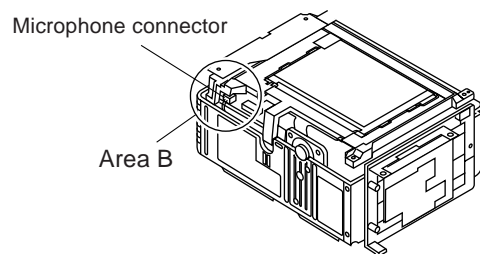


(4) Remove one screw ((i)XiPSN20P04000).



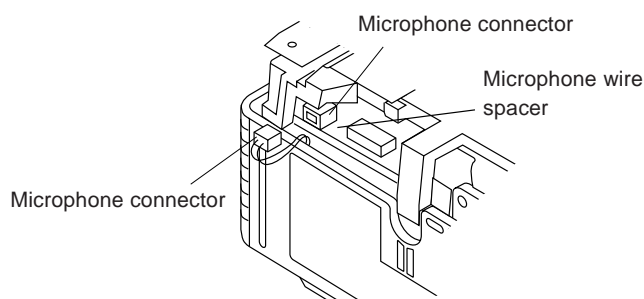
(5) Remove the cabinet L partway, and disconnect the FPC connector.

<3. Removal of the VCR lid>



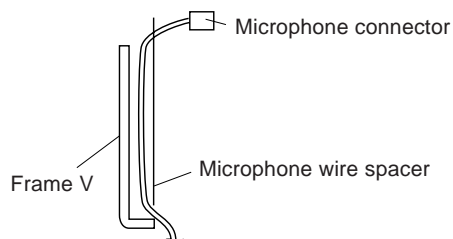
- (1) Disconnect the microphone connector.

<Detail of area B>

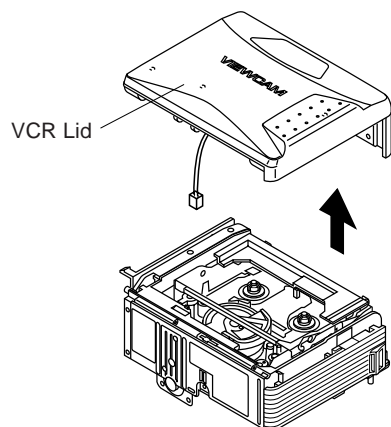


- (2) Remove the connector cable from the hole of the microphone wire spacer.

<Detail of area B>

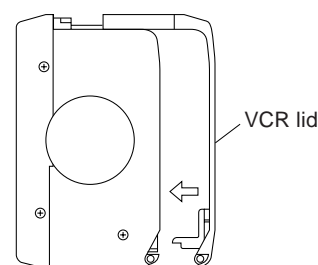


- (3) Remove the microphone wire spacer from the Frame V.



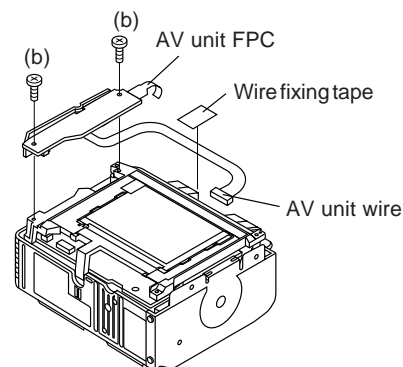
- (4) Pull out the microphone wire cable with care to prevent it from interfering with the mechanical parts, and remove the VCR lid.

Caution for installation of the VCR lid



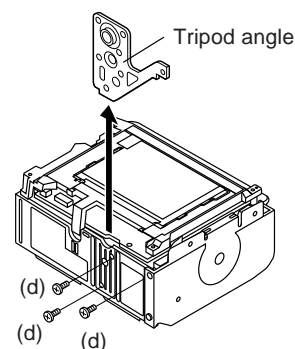
When installing the VCR lid, move the VCR lid in the arrow direction, keeping the VCR lid parallel to the main body as shown above.

<4. Removal of the AV unit and AV unit cover>

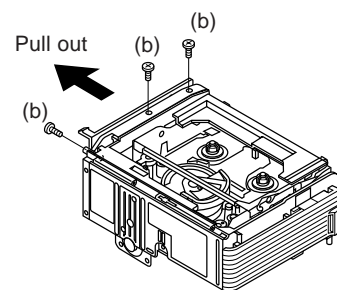


- (1) Peel the wire fixing tape.
- (2) Remove the AV unit wire.
- (3) Remove the AV unit FPC.
- (4) Remove two screws ((b)LX-HZ0018TAFF) fixing the AV unit and LCD holder.

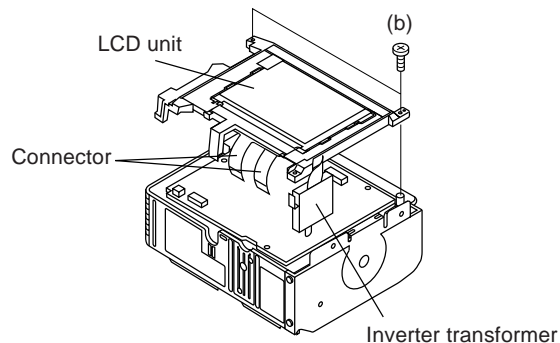
<5. Disassembly of the LCD holder>



- (1) Remove three screws ((d)XiPSF20P04000) and pull out the tripod angle.

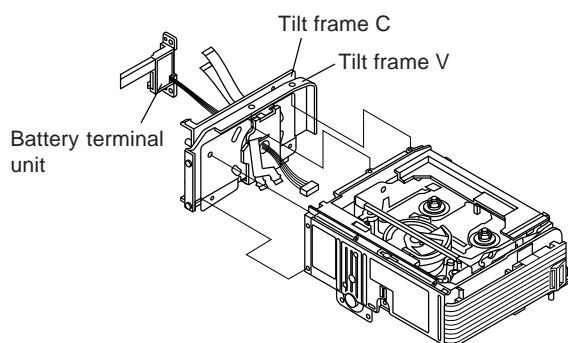


- (2) Remove three screws ((b)LX-HZ0018TAFF) on the tilt frame V.
Move the tilt frame V by a looseness of the tilt FPC.



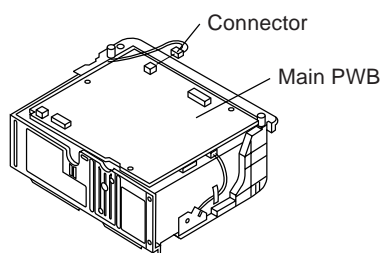
- (3) Remove two screws ((b)LX-HZ0018TAFF) and two connectors, and remove the LCD unit (with inverter) from the main body.

<6. Removal of the tilt unit>

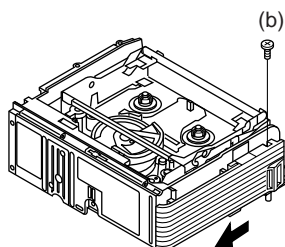


- (1) Disconnect three connectors.
Remove the tilt unit from the cabinet of the main body.

<7. Removal of the speaker cover>

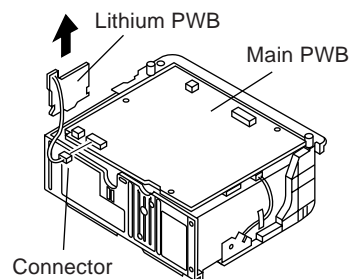


- (1) Remove the connector of the speaker cover from the Main PWB.



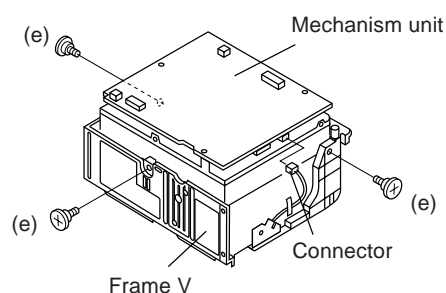
- (2) Remove the screw ((b)LX-HZ0018TAFF) fixing the speaker cover.
(3) Move the speaker holder in the direction of the arrow to remove it.

<8. Removal of the Lithium PWB>



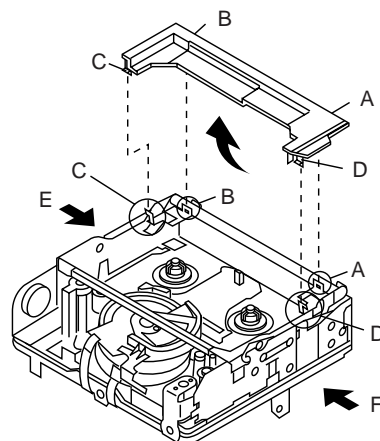
- (1) Remove the connector of the Lithium PWB from the Main PWB.
(2) Move the lithium unit in the direction of the arrow.

<9. Disassembly of the frame V>



- (1) Remove three screws ((e)LX-BZ0191TAFD) and one connector, and remove the frame V from the main body.

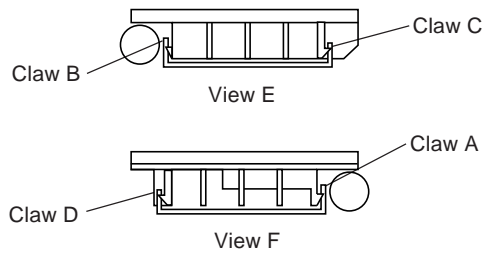
<10. Removal of the cassette compartment lid>



- (1) Using the slotted precision screwdriver, push and turn the two claws (C and D) which fasten the cassette compartment lid, and the cassette compartment lid will be removed from the hook area of the cassette component.
(2) Turning the cassette compartment lid in the arrow direction, lift it, and the claws A and B will be disengaged to remove the cassette compartment lid.

Note:

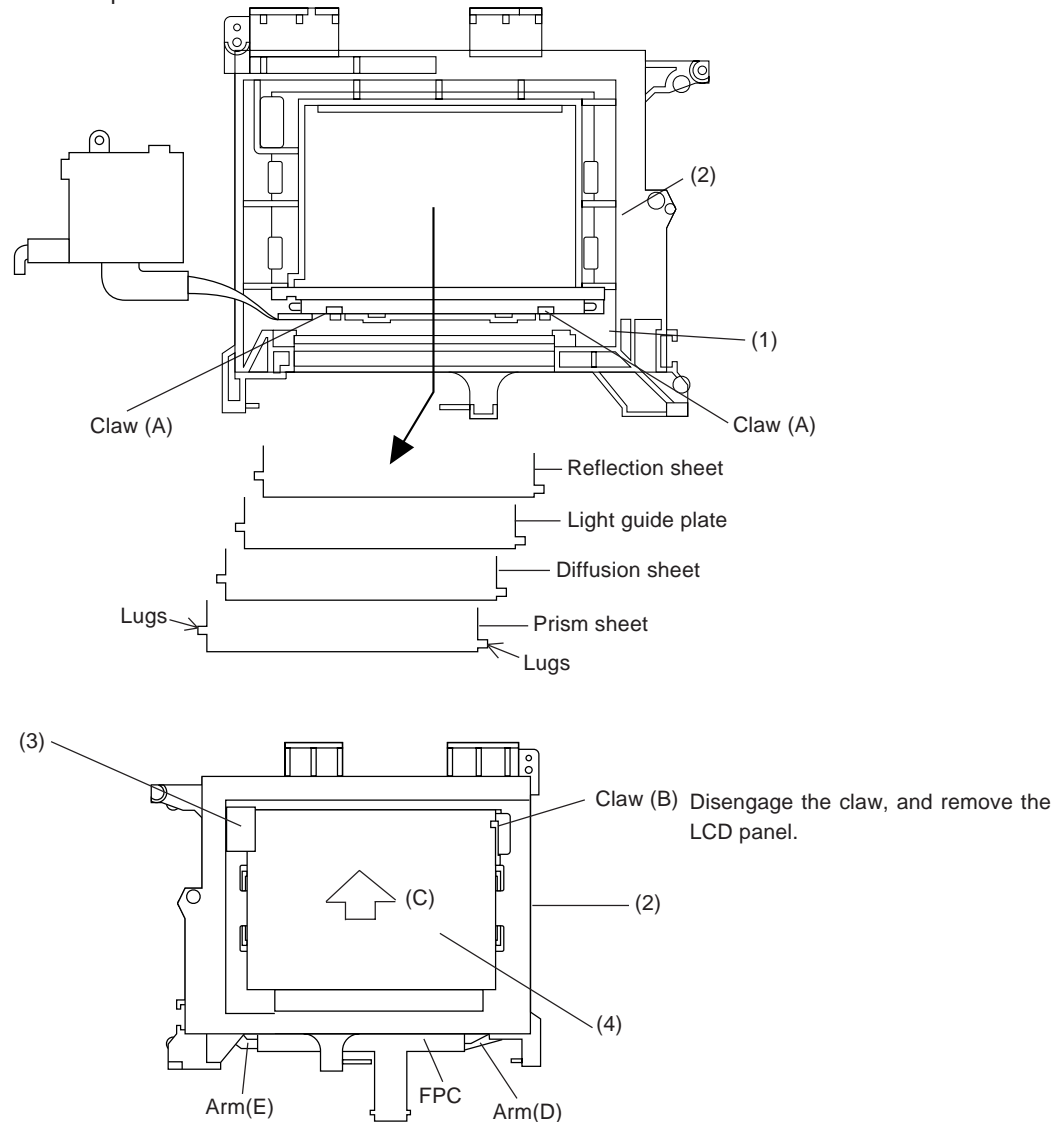
Take care to prevent breaking the claws of the cassette compartment lid.



Note:

When fixing the cassette compartment lid, first engage the claws A and B, and then engage the claws C and D, confirm that the four claws (A, B, C and D) of the cassette compartment lid are securely engaged as shown in the view above.

<11. Disassembly of the LCD panel>



1. Disengage two claws (A), and remove the lamp inverter unit (1) from the LCD holder (2).
2. Remove the sheets from the LCD holder (2).
3. Pull the LCD glass retaining (3).
4. Remove the FPC from Arm(D) and (E).
5. Disengage the claw (B), and slide the LCD panel (4) in the (C) direction to remove the LCD holder (2).

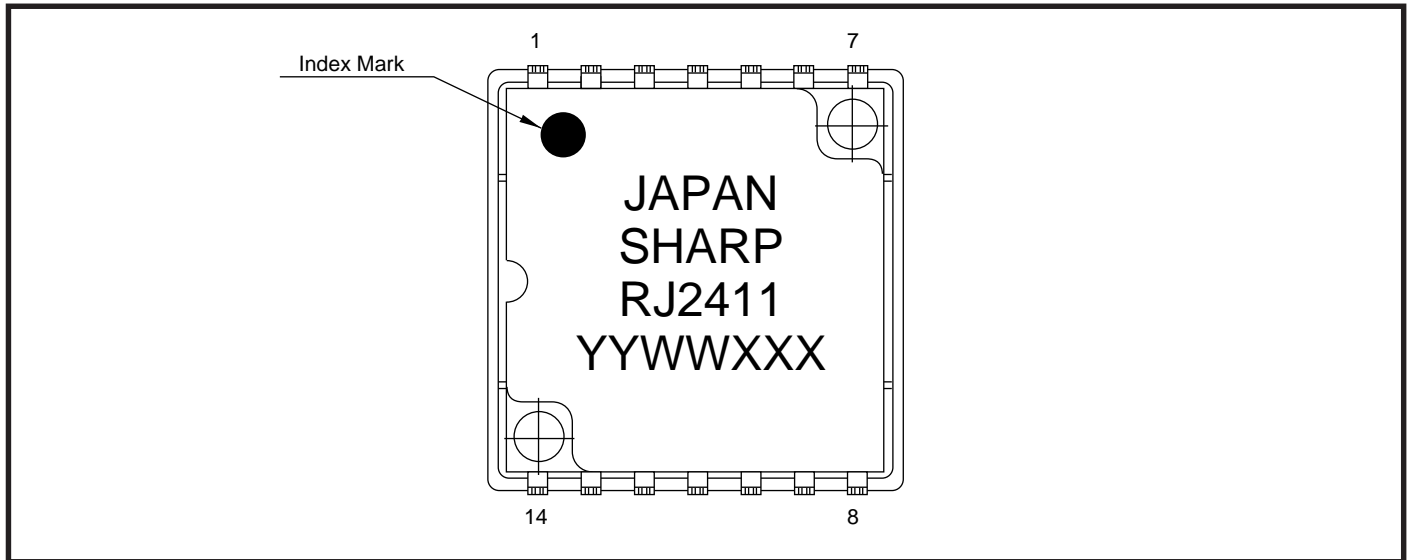
Note:

When handling the prism sheet, diffusion sheet, light guide plate and reflection sheet do not touch any parts other than lugs and sides. With the light guide plate and reflection sheet between reflectors of lamp, install them together with the lamp ass'y.

4-3. REPLACEMENT OF CCD SENSOR

4-3-1. BEFORE REPLACEMENT

- 1) The CCD image sensor is more sensitive to electrostatic breakage than C-MOS LSI. Therefore sufficient means to prevent electrostatic damage must be taken when it is replaced.
 - Ground the soldering iron.
 - Ground also the human body, using the wrist strap(through an 1 Mohm resistor).
 - Until the CCD sensor is mounted on the PWB, fit it to the conductive sponge, and short-circuit the foot lead.
- 2) Take utmost care so that the surface glass of CCD sensor and optical filter are not contaminated or damaged. If any contamination is found, for example fingerprint, wipe it off with silicon paper or clean chamois skin.
- 3) When replacing the CCD sensor, perform quick soldering with a soldering iron which is grounded to prevent static electricity.



CCD bottom view

4-3-2. REMOVAL OF CCD

- 1) Unsolder the CCD sensor leads from the sensor PWB.
- 2) Take out the sensor PWB.
- 3) Remove the two screws (6), and remove the sensor holder and CCD sensor.

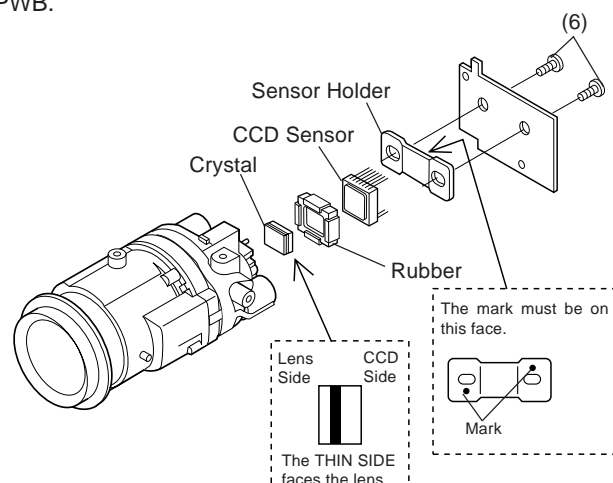
4-3-3. MOUNTING OF CCD

- 1) Place the lens unit upright (since the CCD sensor mount ID faces upward, care must be taken so as not to damage the front lens of unit), put the crystal filter first and then the dust protection rubber into the CCD holder of lens unit. Set the crystal unit with its thin side toward the lens unit.
- 2) Place the CCD sensor so that its No. 1 pin is at the right lower (Positioning hole to be at right), and put the CCD sensor into the CCD holder. For smooth and tight fitting, press the right lower part of back of CCD sensor, and then press the left upper part.

Note: Pay attention to the direction of CCD sensor.

- 3) Place the sensor holder so that its two round markings be visible, and fix the sensor holder with the two screws ((6)LX-HZ0013TAFF).
- 4) Mount the sensor PWB so that the CCD sensor leads go through the PWB holes.
- 5) Solder the CCD sensor lead to the sensor PWB.

Note: Take care not to apply excessive heat.



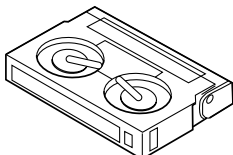
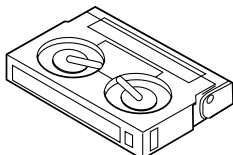


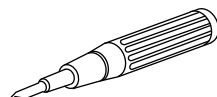
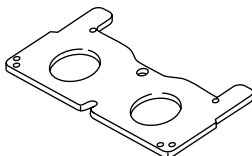
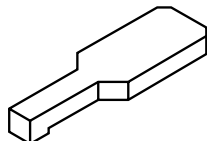
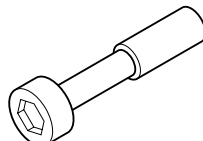
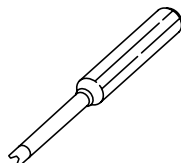
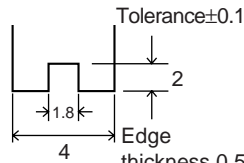
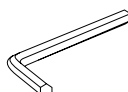
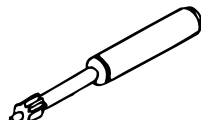
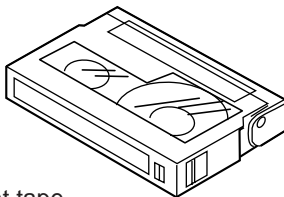
5. MECHANISM ADJUSTMENT

5-1. MECHANISM CHECKING/ADJUSTING JIGS, TOOLS AND PARTS

5-1-1. Mechanism checking/adjusting jigs and tools

Configuration
1. Name
2. Part No.
3. Code
* Model, Application

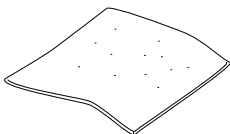
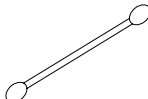
<Note: The entries of list>

 <p>1. Cassette torquemeter for PB 2. JiG8T-012 3. CV * (10 g·cm/25 g·cm)</p>	 <p>1. Cassette torquemeter for VS-REW 2. JiG8T-032 3. CV * (50 g·cm/25 g·cm)</p>	 <p>1. Torque gauge 2. JiGTG0045 3. CN * For measurement of loading brake torque</p>	 <p>1. Torque gauge head 2. JiGTH-MX7U 3. BS * For torque gauge listed left</p>	 <p>1. Torque driver (1.5 kg·cm) 2. JiGTD1500RT0H 3. CB</p>															
 <p>1. Master plane 2. JiGMP-MX7U 3. CG * For adjustment of Tu guide height and Si roller height and checking of reel disk height</p>	 <p>1. Height adjusting jig 2. 9DAGH-E31S 3. BM * For adjustment of Tu guide height and Si roller height</p>	 <p>1. Tu guide height adjusting driver 2. 9EQDRIVER-V712 3. BL</p>	 <p>1. Guide roller height adjusting driver 2. JiGDRiVERHMx7U 3. BU * Bit shape (See the figure above.)</p>	 <p>Tolerance±0.1 2 1.8 4 Edge thickness 0.5</p>															
 <p>1. Hex wrench * For loosening or tightening of Motor stator (1.3mm)</p>	 <p>1. Tension Band and Plate Adjusting Jig 2. JiGDRiVERMX7U2 3. BN</p>	 <p>1. Alignment tape 2. VR2ABOPS 3. BT</p> <table border="1"><thead><tr><th colspan="3">TAPE CONTENTS</th></tr><tr><th>VIDEO IMAGE</th><th colspan="2">AUDIO</th><th>TIME</th></tr></thead><tbody><tr><td>MONOSCOPE</td><td>L-CH</td><td>400Hz</td><td>30MIN</td></tr><tr><td></td><td>R-CH</td><td>1,000Hz</td><td></td></tr></tbody></table>	TAPE CONTENTS			VIDEO IMAGE	AUDIO		TIME	MONOSCOPE	L-CH	400Hz	30MIN		R-CH	1,000Hz		<p><Others> (1) Slide calipers (2) High-precision screwdrivers (Phillips head, slotted head) (3) Long-nose pliers (with thin jaws) (4) A pair of tweezers</p>	
TAPE CONTENTS																			
VIDEO IMAGE	AUDIO		TIME																
MONOSCOPE	L-CH	400Hz	30MIN																
	R-CH	1,000Hz																	

5-1-2. Parts for periodic inspection and maintenance

Configuration
1. Name
2. Part No.
3. Code
* Model, Application

<Note: The entries of list>

<p>1. Oil COSMOHYDRO HV100 * Cosmo Oil Co., Ltd.</p>	<p>1. Screw locking agent (1401B) * Three Bond</p>	 <p>1. Cleaning paper 2. JiGDUSPER 3. AP * Dusper Σ (Sigma) (Ozu Co., Ltd.)</p>	 <p>1. Superfine swab * Commercially available item</p>
<p>1. Greases Morycoat YM-103/X5-6020 * Dow Corning</p>	<p>1. Cleaning liquid (Industrial-use ethyl alcohol) * Commercially available item</p>		

5-2. ITEMS AND TIMINGS OF INSPECTION AND MAINTENANCE

The mechanism of VCR needs the following periodic inspection and maintenance in order that it maintains its high quality. Also, after the machine is repaired, execute the following maintenance and checks regardless of how long it has been used.

5-2-1. Inspection and maintenance list

	Checking/Maintenance point	Used time (hrs.)					Possible symptom encountered	Remarks
		500	1,000	1,500	2,000	3,000		
Tape travel system	Tape running route (Refer to Section 5-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> Lateral noise Unclean head Screen shaking 	Rollers • If abnormal rotation or deflection (significant) is found, replace the roller. Other than rollers • Clean the tape contacting areas. Be sure to use the specified cleaning agent.
	Drum (Refer to Section 5-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Video head	<input type="checkbox"/>	<input type="checkbox"/> ○	<input type="checkbox"/>	<input type="checkbox"/> ○	<input type="checkbox"/> ○	<ul style="list-style-type: none"> Improper S/N ratio No color appears. 	
Driving system	Timing belt	—	★	—	★	★	<ul style="list-style-type: none"> Tape does not run. Tape slackens. Screen shakes. 	• Replace if failure is found.
	Pinch roller	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> ○	<input type="checkbox"/>		
	Capstan D.D. motor	—	○	—	○	○		
	Relay Pulle shaft Pulle gear shaft	—	△	—	△	△	• Abnormal sound	• Apply oil. (Oil : COSMOHYDRO HV100) Note: After oil is applied to the drive gear shaft, slightly wipe it off with swab.
	Drive gear shaft	—	△	—	△	△		
	Loading motor	—	★○	—	★○	★○	<ul style="list-style-type: none"> Not ejectable The specific mode cannot be set. 	• Replace if failure (abnormal sound) is detected.
Performance check	Abnormal sound	★	★	★	★	★		• If conformance to the standard is not ensured, replace part.
	PB/VS-REW take-up torque	—	★	—	★	★		
	PB/VS-REW back tension torque	—	★	—	★	★		
	Tu brake	—	★	—	★	★		

Oil: COSMOHYDRO HV100

Greases: MORYCOAT YM-103/X5-6020

Screw locking agent: THREE BOND 1401B

Cleaning liquid: Industrial ethyl alcohol

○ : Replace.

☐ : Clean.

△ : Apply oil.

★ : Check.

5-2-2. Notes and cautions

- (1) Any cut washers, once removed for parts replacement or for other reason, must be replaced with new ones.
- (2) The mechanism of this VCR does not involve any volume adjustment. If the specified range is not satisfied, either cleaning or replacing the parts is required.
- (3) Oils
 - a) Be sure to use the specified oils (different viscosity may cause troubles).
 - b) For the bearings, be sure to use oil that is free from dust and other foreign substances. (Dust or foreign substance contained in the oil may cause wear or seizure of the bearings.)
 - c) A drop of oil represents the amount of oil which is held on the needle top as shown in Figure 1.
- (4) The circuit repair must be executed without removing the V frame.
- (5) For operating the mechanism alone, actuate it with the motor. The terminal-to-terminal voltage must be DC4V or less.
- (6) When installing the cassette control, press the part A shown in Figure 2.
*Do not press other parts.
- (7) Take care so that the whole mechanism is not deformed.

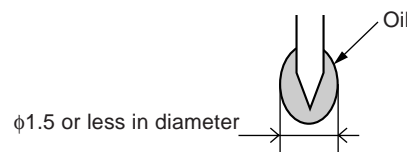


Figure 1

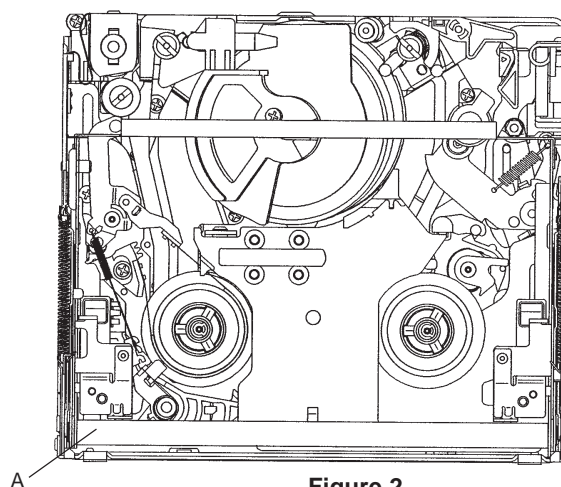


Figure 2

5-3. MECHANISM CHECKS AND ADJUSTMENTS

The description given below relates to the general field services, but does not relate to the adjustment and replacement that require high level equipment, jigs, and technical skills.

In order to maintain the initial characteristics of the machine, it is necessary to execute the maintenance and check and to prevent damage to tapes and other parts. For adjustments which need jigs, be sure to use the jigs.

Notes and cautions

- (1) For mechanism checks and adjustments, be sure to use the AC adapter as the power supply.
- (2) For running the tape, be sure to install the cassette control ass'y in advance. (If the cassette control ass'y is to be removed subsequently after its installation.)

5-3-1. Checking the reel disk height

- (1) Remove the cassette control ass'y.
- (2) Taking due care not to let the master plane touch the tape running areas such as the drum and the guide rollers, position the master plane so that the two guides (A and B in Figure 1) are set in the holes of master plane, then properly set it in the mechanism.
- (3) Using the slide callipers or the like, check that the distance from the upper surface of master plane to the reel support surface of the S/Tu reel disk is within the specified range. (Figure 2)

Note:

When measuring, do not apply excessive force to the reel support surface of reel disk.

- (4) If the measurement is not within the specified range, replace the reel disk ass'y.
- (5) Check the items (2) to (4) above in the following two modes.
 - a) Standby mode
 - b) Playback (recording) mode

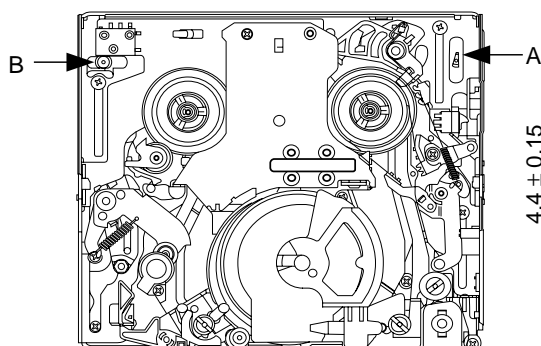


Figure 1

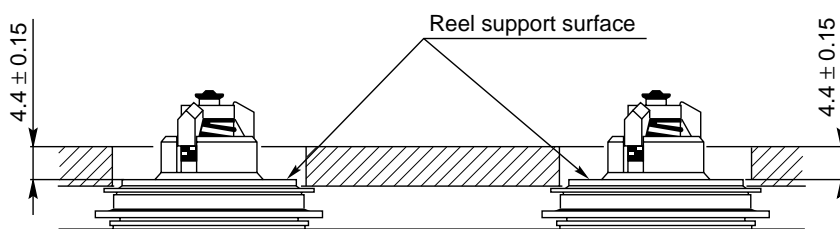


Figure 2

5-3-2. Checking the take-up torque for playback (recording)

- (1) Set the torque cassette (JiG8T-012) in position, and check in the SP-mode recording mode (tape recorded in SP mode) that the torque at the tape taking-up side is within the standard range.

Standard of take-up torque for SP-mode recording (playback):

9 ± 3 g·cm with ripples less than 4 g·cm

(If the torque ripples appear, read the center value of torque between the ripples.)

5-3-3. Checking and adjusting the back tension torque for playback (recording)

- (1) Checking

Set the torque cassette (JiG8T-012) in position, and check in the SP-mode recording mode (tape recorded in SP mode) that the torque at the tape supply side is within the standard range.

Standard of back tension torque for SP-mode recording (playback):

8 ± 2 g·cm with ripples of less than 2 g·cm

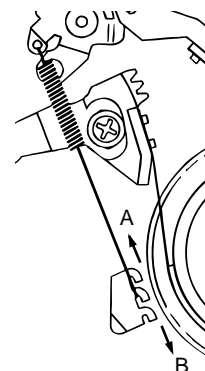
(Torque ripple must be within 8 ± 2 g·cm)

- (2) Adjustment

If the back tension torque is not within the standard range, adjust the tension spring hooking position. If the back tension is too high, hook the spring in the direction A. If the back tension is too low, hook the spring in the direction B.

Note:

After back tension torque adjustment be sure to check the tension pole position.



5-3-4. Checking and adjusting the tension pole position

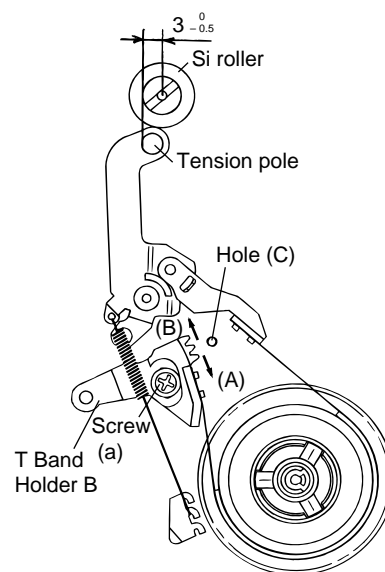
(1) Check

When it begins to wind the P6-120 tape check whether the tension pole is in the specified position to the Si roller as shown in the figure.

If it is not in the specified position, remove the cassette and adjust the position in the following procedure.

(2) Adjustment

1. Don't set up any tape, and select the PB mode. (Refer to Item 5-5-1-(4).)
2. Slightly loosen the screw (a) (to such a strength as the T band holder B can be moved).
3. If the tension pole is in the inner position than specified, dislocate the T band holder B in the arrow (A) direction and if it is in the outer position, dislocate it in the arrow (B) position. Then, tighten the screw (a). (For reference, dislocate it 0.4 to 0.8 mm outer from the position specified above.) For the position adjustment, it is convenient to use the position adjustment screwdriver (JiGDRiVERMX7U2). (Set it in the hole (C).)
4. Check the position in the "(1) Check" procedure described above.
5. If it is not in the specified position, repeat the adjusting procedure 1 thru 3.



Notes:

- Tightening torque of screw (a) 70 mN·m
- To check the position, be sure to run the tape.
- If the cassette compartment assembly is removed, it makes the work easier. (Refer to Item 5-5-3.)

5-3-5. Checking the take-up torque for rewind playback (VS-REW)

(1) Remove the cassette compartment ass'y and set to the sensor OFF mode.

(2) Set the torque gauge (JiGTG0045) on the S reel disk, and check in the rewind playback (VS-REW) mode that the torque at the supply side is within the specified range.

Standard of take-up torque in rewind playback (SP mode):

31 ± 5 g·cm with ripples less than 5 g·cm.

(If the torque ripples appear, read the center value of torque between the ripples.)

5-3-6. Checking the back tension torque for rewind playback (VS-REW)

(1) Set the torque cassette (JiG8T-032) in position, and check in the rewind playback (VS-REW) mode that the torque at the tape take-up side is within the specified range.

Standard of back tension torque in rewind playback (SP mode):

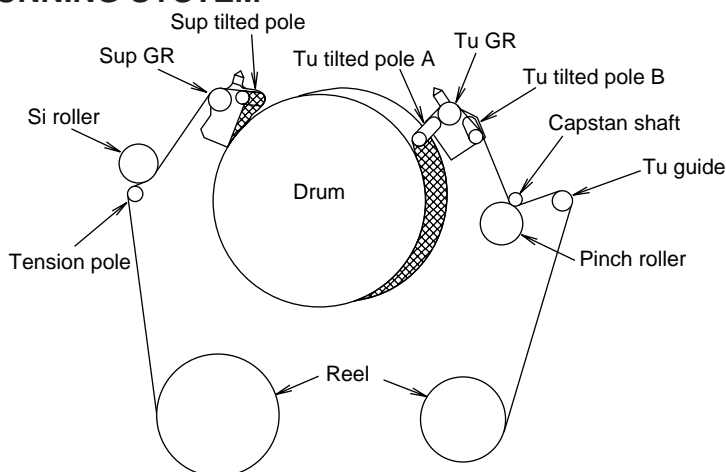
14 ± 5 g·cm with ripples less than 5 g·cm

(If the torque ripples appear, read the center value of torque between the ripples.)

5-4. ADJUSTMENT OF MECHANISM TAPE RUNNING SYSTEM

5-4-1. Preparation for adjustment

- (1) Clean the tape running areas (guide poles, rollers, drum, Capstan shaft, Pinch roller) (Figure 1)
- (2) Connect the oscilloscope to the following TPs.
RF output TL7410
H-SW-P TL7417
GND TL7413
- (3) Playback the alignment tape (VR2ABOPS).
- (4) Ascertain that each guide is free from remarkable curl.
- (5) Ascertain that the RF waveform of inlet and outlet sides is flat on the oscilloscope (Figure 2, (a)). Unless the waveform is flat, (Figure 2, (b), (c)), make an adjustment as follows.



Tape running system (Figure 1)

5-4-2. Adjusting the Sup GR and Tu GR

- (1) Turn the Sup and Tu guide rollers to get the flat waveform at the inlet and outlet sides.

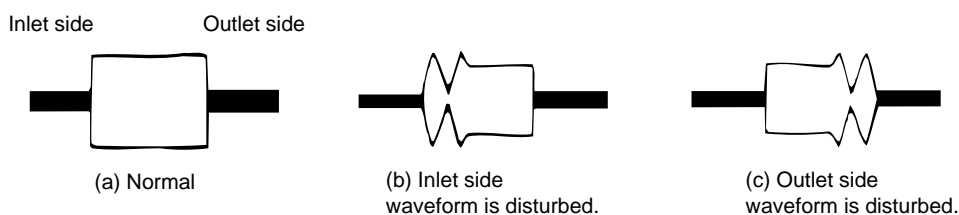


Figure 2

5-4-3. Adjusting the Si roller height

After replacement of the Si roller preset and adjust the Si roller height.

- (1) Si roller height presetting
Adjust the height from the upper surface of mechanism chassis to the upper surface of lower flange with the aid of jig. Then lower it by 90° (clockwise).

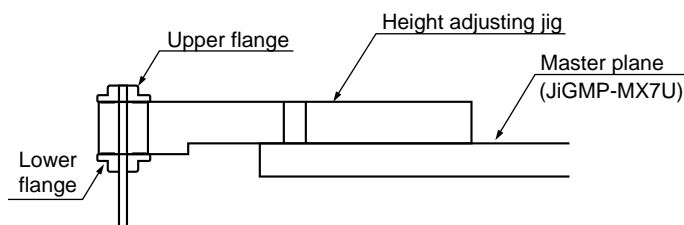


Figure 3

- (2) Adjusting the Si roller
 - 1 Playback the tape to set the V/SR mode.
 - 2 Ascertain that the tape is not folded on the lower flange (B) of Si roller. (Figure 4)
If tape folding is found, turn the upper flange (A) of Si roller with the driver (clockwise) to eliminate the folding.
 - 3 Playback the alignment tape (VR2ABOPS).
 - 4 Adjust the Sup GR and Tu GR by the procedure described in section 4-2 above.
 - 5 After V/S F,R perform playback so as to ascertain that the waveform rises horizontally within 2 seconds.
 - 6 Unless the normal waveform is obtained (Figure 5), turn counterclockwise the upper flange (A) of Si roller, and repeat the step (5) above. Repeat the steps (5) and (6) until the normal waveform is obtained. At this time ascertain that the inlet travel does not change in the normal playback state. If any change is found, adjust the Sup GR, and redo the step (5).

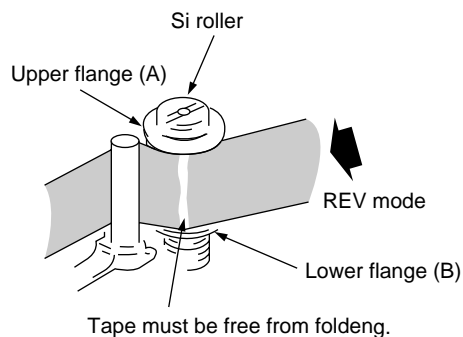


Figure 4

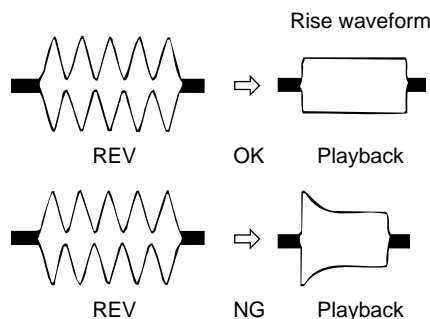


Figure 5

5-4-4. Adjusting the Tu guide

After replacement of Tu guide preset and adjust the height.

(1) Tu guide height presetting (Figure 6)

Adjust the height from the upper surface of mechanism chassis to the upper surface of lower flange with the aid of jig.

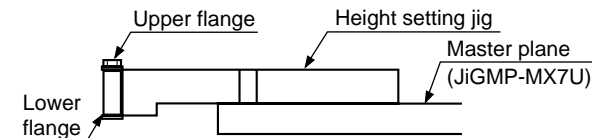


Figure 6

(2) Adjusting the Tu guide (Figure 7)

- 1 Playback the alignment tape (VR2ABOPS).
- 2 Check that the tape runs at the same height near the capstan shaft in case of V/S F and V/S R.
- 3 If the tape running position in case of V/S R is higher than the tape running position in case of V/S F, turn clockwise the Tu guide nut. If the tape running position in case of V/S R is lower than the running position in case of V/S F, turn counterclockwise the Tu guide nut.

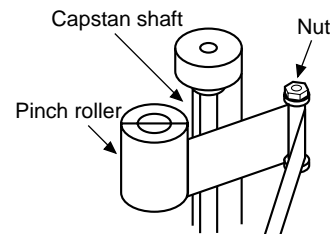


Figure 7

5-4-5. Checking the V/S F and R waveforms (Figure 8)

- (1) Playback the alignment tape (VR2ABOPS), and set the V/S R mode. At this time ascertain that the waveform crest pitch is kept constant for more than 5 seconds.
 - (2) Set the V/S F mode. At this time ascertain that the waveform crest pitch is kept constant for more than 5 seconds.
- Unless the constant pitch is obtained, execute the checks of Section 4-2, 3, and 4.

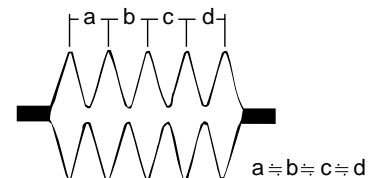


Figure 8

5-4-6. Checking after adjustment

(1) Envelope check

- 1 Playback the alignment tape (VR2ABOPS).
- 2 Ascertain that the envelope maximum to minimum ratio is 65% or more. (Figure 9)
- 3 Ascertain that the waveform does not change remarkably. (Figure 10)

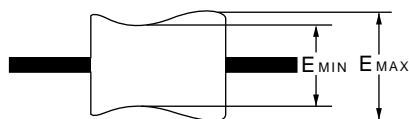


Figure 9 $\frac{E_{MIN}}{E_{MAX}} \geq 65 (\%)$

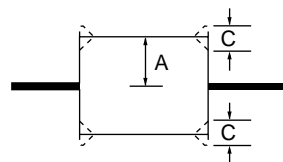


Figure 10 $C \leq 1/8A$

(2) Rise check

- 1 Playback the alignment tape (VR2ABOPS).
- 2 Once eject the cassette, and then load it again.
- 3 Set the playback mode, and ascertain that the RF waveform rises horizontally within 2 seconds. At this time ascertain that there is no tape slackness near the pinch roller.
- 4 After V/S F, R and FF/REW execute playback, and ascertain that the RF waveform rises horizontally within 2 seconds. At this time ascertain that there is no tape slackness near the pinch roller.

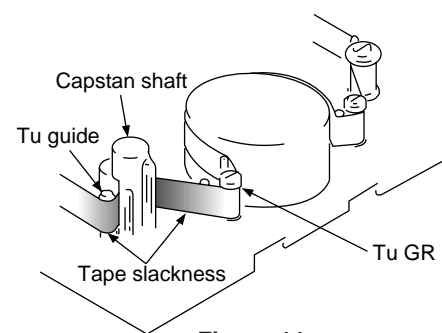


Figure 11

(3) Checking the tape running

- 1 When the tape is played back, ascertain that tape lift and tape curl of 0.3 mm or more do not occur at the lower flange of Si roller, upper flange of Sup GR, upper flange of Tu GR, and upper/lower flange of Tu guide.
- 2 In case of V/S F and R ascertain that no curl is found at each flange.

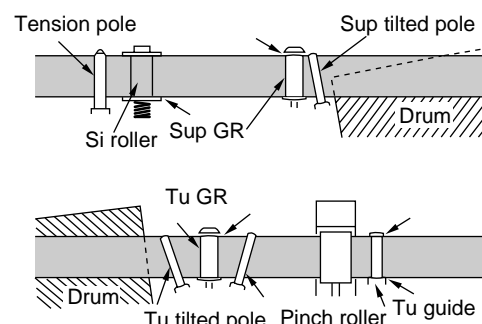


Figure 12

5-4-7. Checking and adjusting the playback switching point

Refer to the description of playback switching point adjustment in section of VCR circuit adjustment.

5-5. MECHANISM ASSEMBLING AND PARTS REPLACEMENT (DISASSEMBLING AND ASSEMBLING)

Below is given an explanation of assembling of mechanism and its parts replacement.
The removal of cabinet and the PWB is explained in the relevant service manual.

Notes

- 1 After removal of cut washers be sure to replace them with new ones.
- 2 Do not place the mechanism upside down on the table. Otherwise, the mechanism part may be deformed or damaged, resulting in malfunction.
- 3 When assembling, take care so that screw, washer or other foreign substance do not enter. Otherwise mechanism malfunction may occur.
- 4 Be sure to use the specified cleaning liquid, oil, grease and screw lock as listed below. Otherwise mechanism malfunction may occur.

Oil: Cosmo Oil Co., Ltd.
COSMOHYDRO HV100

Grease: Dow Corning
MORYCOAT YM-103/X5-6020

Screw lock: THREE BOND
1401B

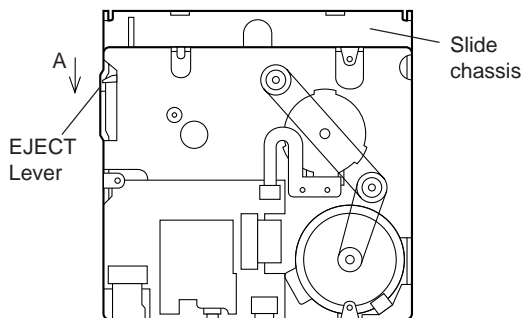
Cleaning liquid: Industrial-use ethyl alcohol

5-5-1. Mechanism modes

To actuate the mechanism, apply DC3 to 4V to the L motor. At this time the L motor connector must have been disconnected in advance.
Below is given an explanation of the mechanism mode necessary for mechanism check, adjustment and replacement.

(1). **EJ** (Eject) mode (See Figure 1)

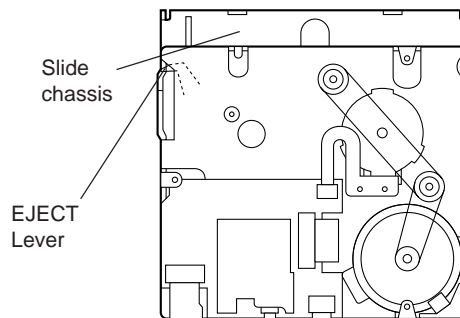
In this mode, it is mechanically positioned to eject the cassette. It is the position where the EJECT lever is moved the farthest in the direction A in the S/B mode. (In this mode, the cassette compartment assembly can not be locked.)



EJ mode
Figure 1

(2). **S/B** (Standby) mode (See Figure 2)

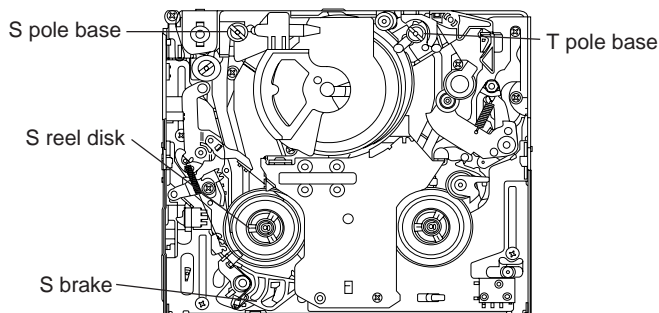
When the cassette is loaded, the mechanism is set to the S/B mode. In this mode the slide chassis is most far from the drum and the Eject lever is in position shown in Figure 2 (in position where the cassette control ass'y can be locked).



S/B mode
Figure 2

(3). **STOP** mode (See Figure 3)

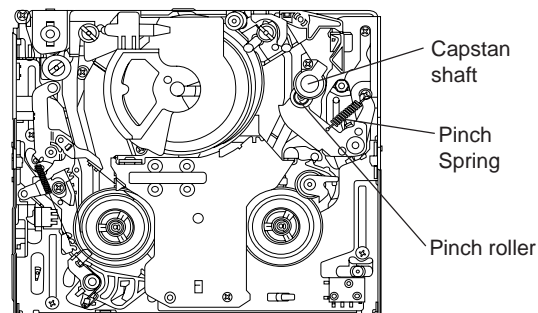
In the STOP mode the S and T pole bases are pressed in the STOP position (or Rec Lock position in CAMERA mode), and the S brake is in contact with the S reel disk.



STOP mode
Figure 3

(4). **PB** mode (See Figure 4)

In this mode, it is positioned for the playback, record and so on. It is the mechanical position where the pinch roller is pressed against the capstan shaft to make the pinch-pressing spring the most longest.



PB mode
Figure 4

5-5-2. Cassette control ass'y

<Disassembling>

- (1) Set the unit to the EJECT mode, and let the housing stand upright. Or set the unit to the STANDBY mode, press the lock lever in the arrow direction, and let the housing stand upright. (See Fig. 5: in the direction (a) or (b)) (When pushing in the direction (a), slightly lift the housing by hand to release the lock lever.)
- (2) Remove the four screws (2) and take out the down guide (3).
- (3) Slide the two link support shafts (c) and the two roller shafts (d) to the round openings (g) on their respective slide chassis slits (two at (e) and two at (f)).
- (4) Deflect the roller shafts (d) a little inward to get them out of the round openings (g) on the slide chassis. (Be careful not to deform the inner links.)

<Reassembling>

- (1) Set the unit to the STANDBY mode.
- (2) Deflect the roller shafts (d) a little inward, and fit them into the round openings (g) on the slide chassis. (Be careful not to deform the inner links.)
- (3) Align the flanges of roller shafts (d) with the slide chassis slits (f). While sliding the flanges, fit the support shafts (c) in the slide chassis slits (e), and slide them until they reach the slits.
- (4) Attach the down guide. (While pressing the guide in the direction (i), tighten the screws until the gap (j) between the down guide (3) and the support shafts (c) becomes zero.)

Tightening torque: 70 ± 7 mN·m (0.7 ± 0.07 kg·cm)

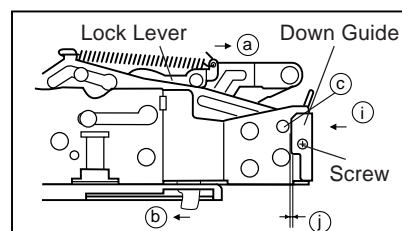


Figure 5. Lock lever section

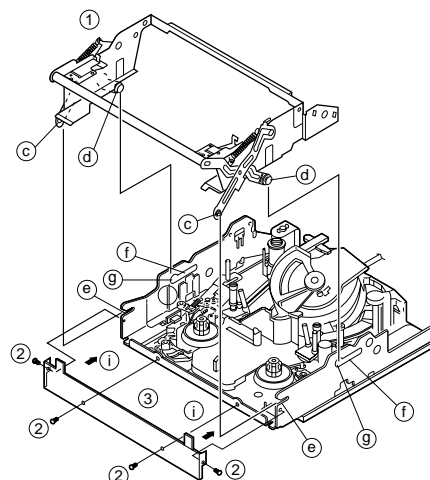
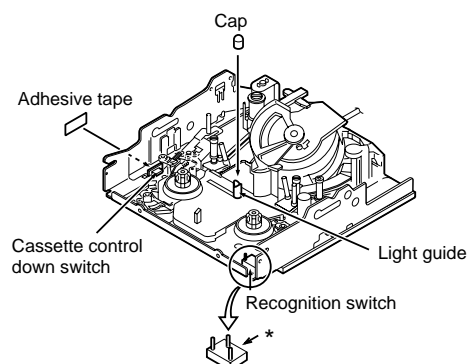


Figure 6

5-5-3. Actuating the mechanism with the cassette control ass'y removed

- (1) Turn on the power supply with the cabinet and camera unit removed, referring to the Service Manual (so as to actuate the mechanism).
- (2) Put the cap on the light guide.
- (3) Press the cassette control down switch through the adhesive tape in the arrow direction so as to turn it on. At this time take care to avoid it in contact with the cassette. Keep the switch pressed (if the switch is turned off, unloading occurs).

Note: To set the Rec mode, press the pin (marked with the asterisk *) of recognition switch (this operation is not necessary in other modes).



5-5-4. Drum and Drum base

*The upper drum and the lower drum have been replaced until now, respectively. However, for this model, they are replaced as the upper/lower drum ass'y. When replacing the drum, put on gloves and be careful not to damage it.

<Disassembling>

- (1) Drum base (Common to both types)
Remove the three fixing screws to remove the drum base as shown in the Figure 1.

<Reassembling>

Follow steps opposite to the drum disassembling method.

- (1) Drum base
Adjust the positioning pins and secure the drum base with screws. (3 pcs.)
- (2) Drum ass'y
Install the drum ass'y to the main chassis and secure it with screws. (3 pcs.)
- (3) Tape guide
Adjust the positioning pins and secure the tape guide with a screw. (1 pc.)

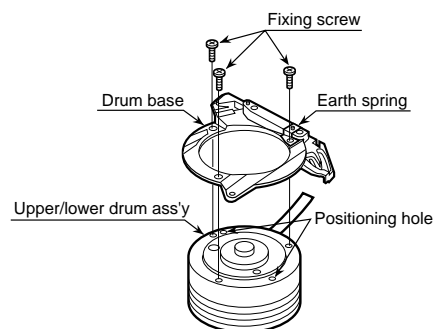


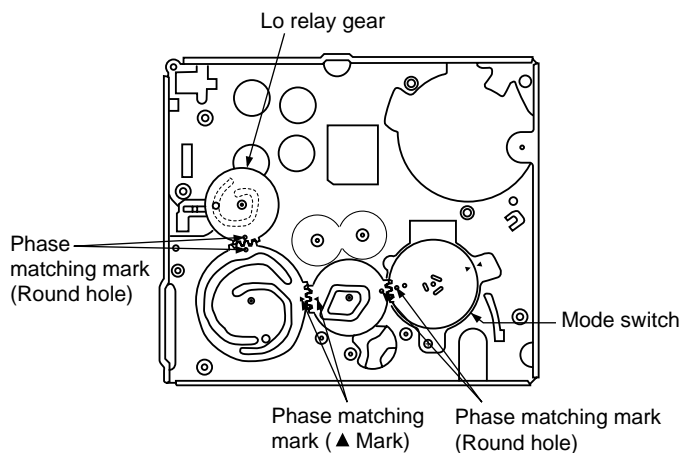
Figure 1

5-5-5. Phase matching

The phase of the following parts must be matched as shown in the figure below.

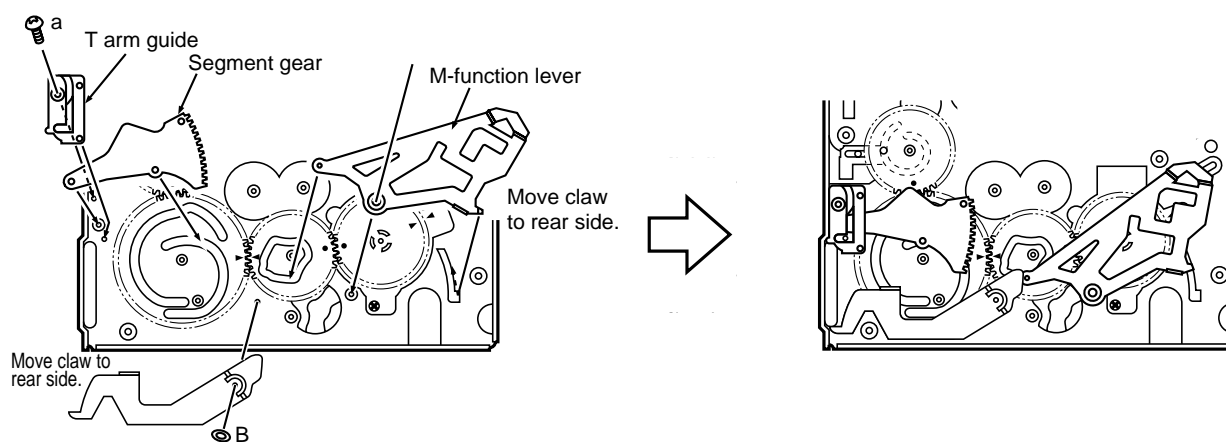
(Ascertain that the ▲ marks and round holes align.)

- (1) Lo relay gear
- (2) Main cam
- (3) Sub-cam
- (4) Mode switch



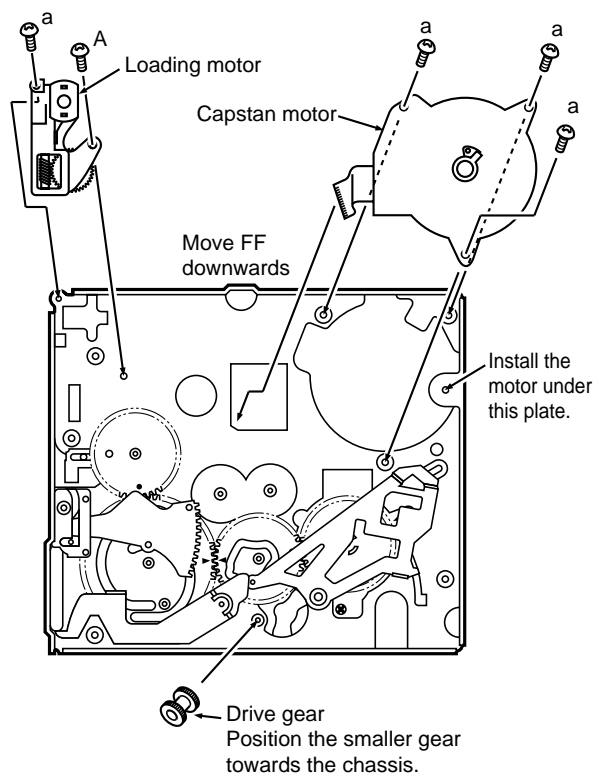
5-6. MECHANISM ASSEMBLING METHOD

- (1) Adjust the phase of each part.
- (2) Install screws and washers.
- (3) Install the segment gear, T arm guide, the M-function lever and the eject lever.



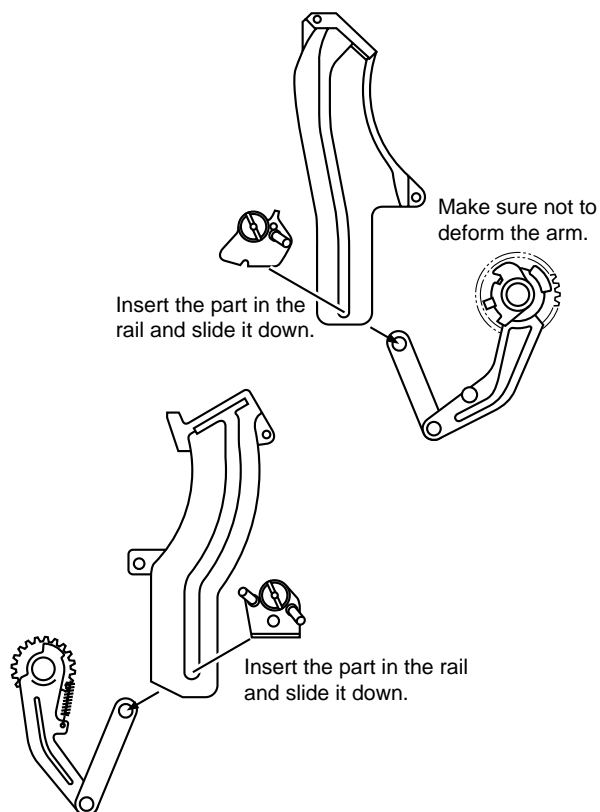
	Item	Tightening torque	Quantity
a	S Tight M1.4 x 3	70mN·m (0.7kgf·cm)	1
B	ø0.8-ø3-t0.2	—	1

- (4) Install the loading block assembly and the capstan motor.
(5) Install the drive gear. At this time, pay attention to the direction of gear. (The small gear must be located in the chassis side.)

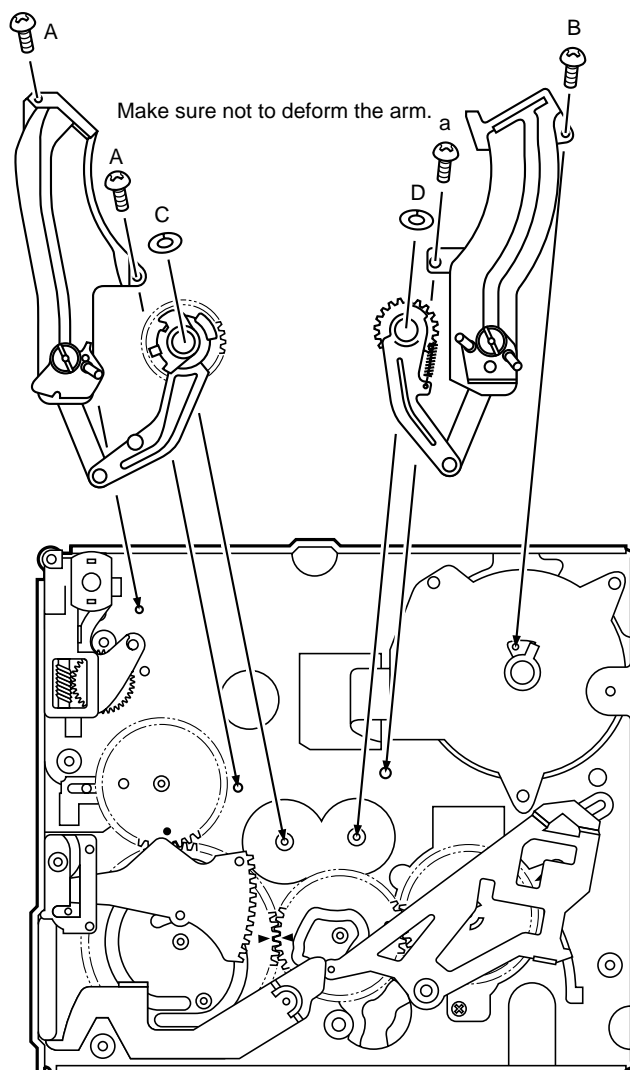


	Item	Tightening torque	Quantity
A	S Tight M1.4 x 2.5	70mN·m	1
a	S Tight M1.4 x 3	70mN·m	4

- (6) Install the guide rail assembly.

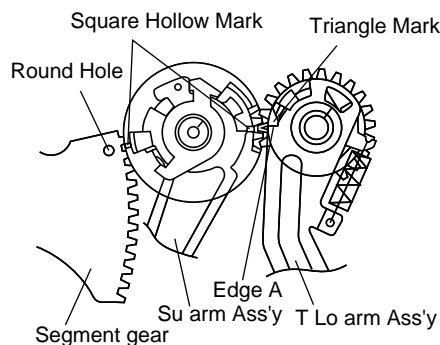


- (7) Install the guide rail assembly taking care to position it correctly.

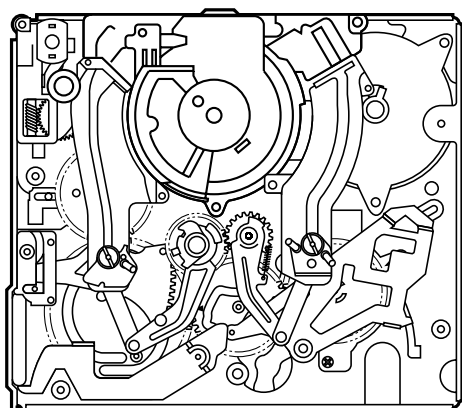
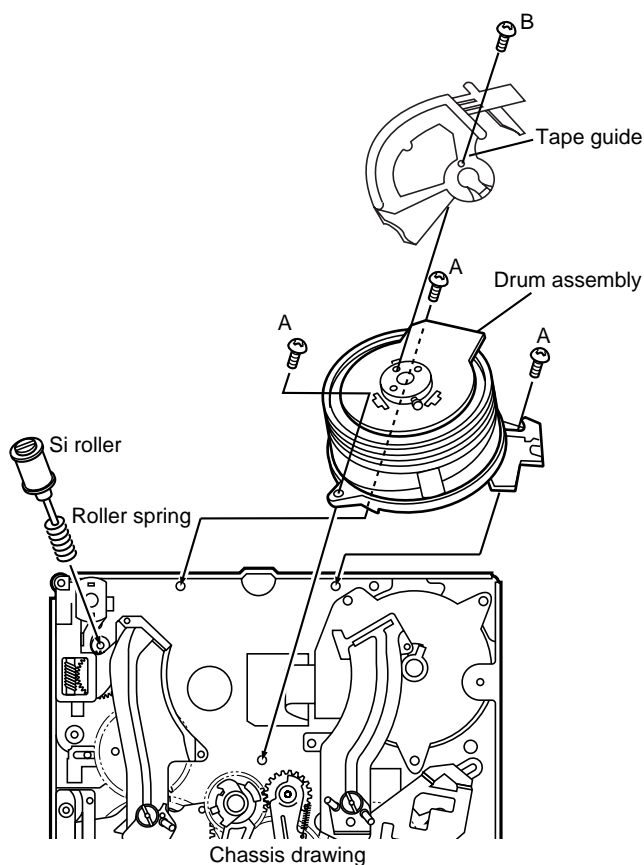


	Item	Tightening torque	Quantity
A	S Tight M1.4 x 2.5	70mN·m	2
B	S Tight M1.4 x 4	40mN·m	1
C	ø0.8-ø3-t0.2	—	1
D	ø2.1-ø5-t0.25	—	1
a	S Tight M1.4 x 3	70mN·m	1

Align the marks on the parts.

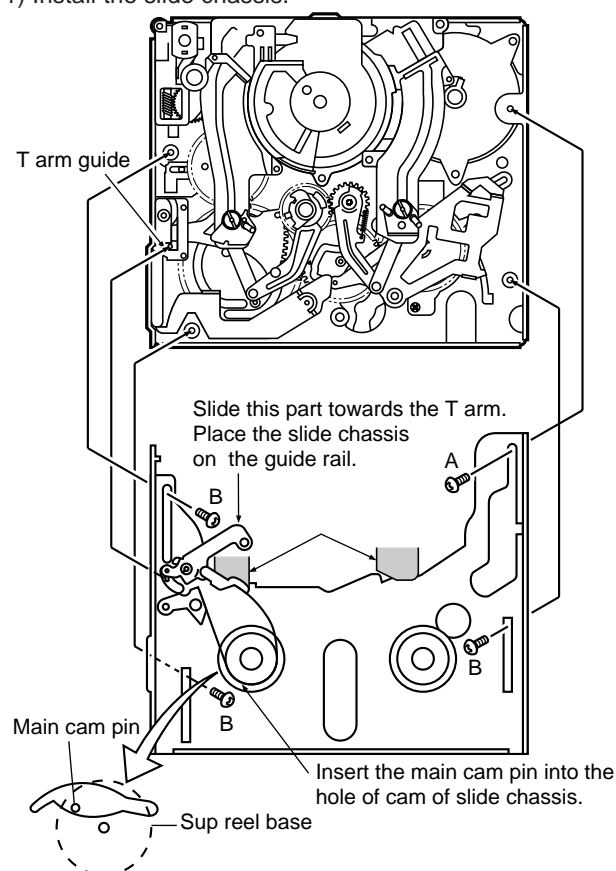


- (8) Install the drum assembly in the chassis.
 (9) Install the tape guide in the drum assembly.
 (10) Install the Si roller.



	Item	Tightening torque	Quantity
A	S tight M1.7 x L5.3	100mN·m	3
B	S tight M1.7 x L2.5	60mN·m	1

- (11) Install the slide chassis.

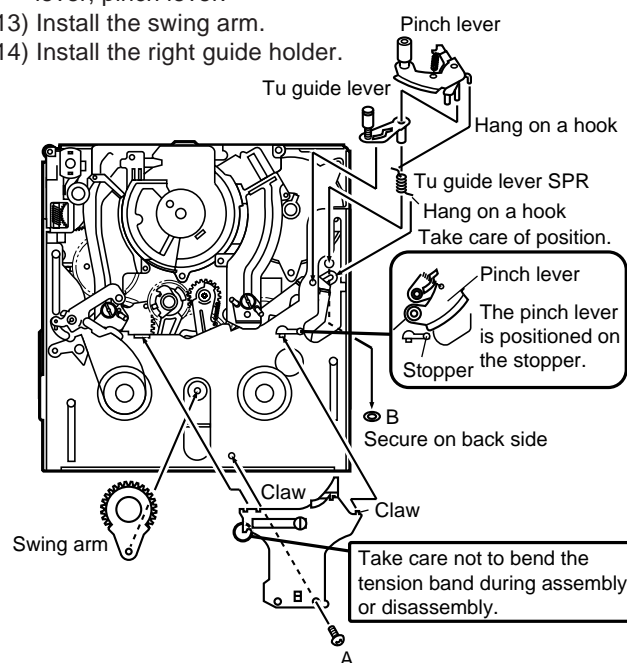


	Item	Tightening torque	Quantity
A	M1.4 x 1.5 ϕ 4.5	40mN·m	1
B	M1.4 x 1.5 ϕ 3.5	40mN·m	3

- (12) Install in the following order: T guide lever spring, T guide lever, pinch lever.

- (13) Install the swing arm.

- (14) Install the right guide holder.



	Item	Tightening torque	Quantity
A	S tight M1.4 x 2.5	70mN·m	1
B	CW ϕ 0.8- ϕ 3-t0.2	70mN·m	1

6. ADJUSTMENT OF THE ELECTRICAL CIRCUITS

6-1. BEFORE ADJUSTMENT

- Electric circuit adjustment becomes necessary, in most cases, when any of the wear mechanical parts or the video head has been replaced. Before starting the electric circuit adjustment, be sure to check that the mechanical parts work well (i.e., the mechanical parts have all been perfectly adjusted). In case a trouble or troubles are found in the electric circuitry, be sure to pinpoint the cause(s) by using the measuring instruments described below. After locating the trouble spot(s), then proceed to repair, replacement or adjustment. Do not change the positions of the controls when adequate measuring instruments are not available.
- In order to implement a higher-density, smaller machine, most of the electric circuit parts used on the Circuit Boards are of small-sized, surface-mounted type. For replacing part(s) as after-sales, service, work with a soldering iron as speedily as possible. The heat resistance of the surface-mounted components is poor, when compared with the larger-sized discrete parts used for television sets and stationary decks, owing to their small sizes. Therefore, exercise due care to avoid long-time exposure of the pins of these parts to the heat of the soldering iron which may possibly damage them. Such care should be exercised especially for chip-layer capacitor replacement. It is advisable to use a temperature-controlled ceramic soldering iron (temperature at the tip: 250 C, contacting time: less than 5 seconds).

6-2. If adjustment is required

The electric circuit needs to be adjusted if:

- ① The mechanism (including H/A PWB) is replaced.
- ② The lens (including CCD PWB) is replaced.
- ③ The LCD panel is replaced.
- ④ The main PWB is replaced.
- ⑤ E²PROM on the IC705 and IC002 are replaced.

6-3. E²PROM setting

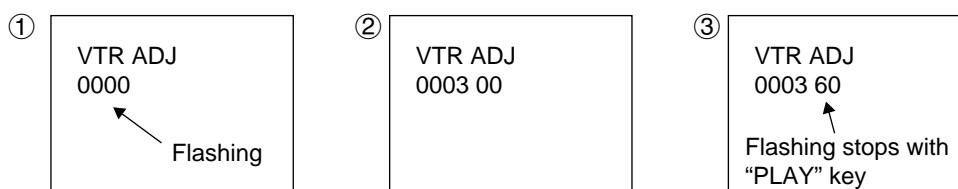
6-3-1. Data setting procedure

0) Remove the backup battery (CR2025).

1) Move the switch on the main unit to VCR for "VTR ADJ", and to CAMERA for "CAM ADJ".

2) Example: For "VTR ADJ" (Basic operations are the same as "CAM ADJ".)

- ① After pressing the "CONTINUE" key on the service remote control (RRMCG0033TASA), press the "VTR ADJ" key.
- ② Select the corresponding address using the "FF" or "REW" key on the service remote control, and confirm it with the "PLAY" key.
- ③ Select the target data with the "FF" or "REW" key and press the "PLAY" key to confirm the selection.
- ④ If you want to change other address data sequentially, press the "STOP" key and repeat steps ② and ③.



3) Data is written in E²PROM by entering the stand-by mode and removing the AC adapter and battery.

6-3-2. [When IC705 is replaced]

- 1) Following the procedures to change E²PROM data, enter and confirm the address data in (Table 1) and (Table 2).
- 2) Perform adjustment of electric circuit, head switching, recording current, audio circuit, and LCD circuit in this order.

6-3-3. [When IC002 is replaced]

- 1) Following the procedures to change E²PROM data, enter and confirm the address data in (Table 3).
- 2) Perform adjustment of the lens and then camera signal process.

6-3-4. Setting value

Table 1) When IC705 is replaced

	VTR ADJ ADD.	MODEL			
		A111U DATA	AH131U DATA	AH151U DATA	AH161U DATA
Model	01	00	00	00	00
	09	FF	FF	FF	FF
Destination	02	01	01	01	01
	0A	FE	FE	FE	FE
Specification	03	60	00	00	00
	0B	9F	FF	FF	FF
Menu 1	04	00	00	00	00
	0C	FF	FF	FF	FF
Menu 2	05	00	00	00	00
	0D	FF	FF	FF	FF

Table 3) When IC002 is replaced

	CAM ADJ ADD.	DATA			CAM ADJ ADD.	DATA	
		A111U AH131U	AH151U AH161U			A111U AH131U	AH151U AH161U
1	0A9	-	01	13	1B5	-	09
2	0AA	-	9F	14	1E4	-	42
3	0AB	-	30	15	22D	-	1D
4	0AC	01	30	16	22E	-	13
5	0AD	9F	-	17	22F	-	23
6	0AE	30	-	18	245	-	02
7	0AF	30	-	19	246	-	1F
8	0CA	-	FE	20	323	70	88
9	0DD	FE	-	21	324	-	00
10	1B2	-	44	22	325	7B	71
11	1B3	-	22	23	326	59	63
12	1B4	-	CC				

Table 2) When IC705 is replaced

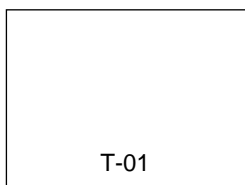
VTR ADJ	ADD.	DATA			
		A111U	AH131U	AH151U	AH161U
1	007	02	02	02	02
2	01E	10	10	-	-
3	022	08	08	88	88
4	025	03	03	-	-
5	02F	40	40	40	40
6	050	8F	8F	8F	95
7	051	8A	8A	8A	90
8	053	-	-	-	74
9	088	-	-	-	55
10	0AE	-	-	-	08
11	0BF	FE	FE	-	-
12	0CB	-	-	-	5A
13	0D6	0D	0D	-	-
14	0E7	70	70	-	-
15	151	28	28	-	-
16	160	51	51	-	-
17	166	4C	4C	4C	4C
18	176	03	03	03	03
19	189	75	75	-	-
20	1A6	E9	E8	-	-
21	1B2	48	48	-	-
22	210	E0	E0	-	-
23	211	51	51	-	-
24	212	02	02	-	-
25	213	28	28	-	-
26	214	92	92	-	-
27	215	0E	0E	-	-
28	216	01	01	-	-
29	217	48	48	-	-
30	228	04	04	-	-
31	229	5F	5F	-	-
32	22A	52	52	-	-
33	22B	86	86	-	-
34	22C	5F	5F	-	-
35	22D	5A	5A	-	-
36	22E	44	44	-	-
37	22F	5F	5F	-	-
38	230	52	52	-	-
39	231	86	86	-	-
40	232	04	04	-	-
41	233	67	67	-	-
42	234	52	52	-	-
43	235	86	86	-	-
44	236	E0	E0	-	-
45	237	61	61	-	-
46	238	E0	E0	-	-
47	239	87	87	-	-
48	23A	60	60	-	-
49	23B	01	01	-	-
50	23C	40	40	-	-
51	23D	0E	0E	-	-
52	23E	02	02	-	-
53	23F	00	00	-	-
54	240	21	21	-	-
55	241	96	96	-	-
56	242	FC	F0	-	-
57	243	51	51	-	-
58	244	72	72	-	-
59	245	00	00	-	-
60	246	00	00	-	-
61	247	00	00	-	-
62	248	E0	E0	-	-
63	249	87	87	-	-
64	24A	60	60	-	-
65	24B	01	01	-	-
66	24C	20	20	-	-
67	24D	0E	0E	-	-
68	24E	08	08	-	-
69	24F	00	00	-	-
70	250	40	40	-	-
71	251	8E	8E	-	-
72	252	01	01	-	-
73	253	00	00	-	-
74	354	31	31	-	-
75	255	96	96	-	-
76	256	96	96	-	-
77	257	0E	0E	-	-
78	258	72	72	-	-
79	259	00	00	-	-

* Before starting PWB adjustment, write the stipulated ADD DATA in EEPROM and confirm it.

6-4. TEST mode

TEST No.	Title	Contents
1	Sensor Off	All the sensors are off except for the cassette control switch, DEW sensor, and battery sensor.
2	Mecha Adjustment mode	ATF sampling is restricted to the central part.
3	Shut Off Adjustment	Shutoff voltage value is written in E ² PROM.
4	Error Display	—
5	PASS mode	Track shift (1/4 shift)
6	Cam Adjustment mode	—
7	VCR Adjustment mode	—
8	Head Switching Point ADJ.	If “TEST 8” is selected for normal tape playback, Head Switching Pint is automatically adjusted.

Note: If “T-03” is selected in the CAM mode while a recordable tape is loaded, the unit starts recording automatically.



- ① Select No with “FF” or “REW” key.
- ② Confirm with “PB” key.

6-5. Battery shutoff voltage adjustment

- 1) Supply power to the main unit, using the variable-voltage DC power supply (range of 2.5V to 5.0V).
- 2) Set the CAM/OFF/VCR SW to CAM to switch to the camera mode.
- 3) Load a recordable tape and set the main unit to CAM REC. PAUSE.
- 4) Set the main unit to TEST mode No. 3, and start recording.
- 5) Measure voltage between TL2911(+) and TL2914(GND), and adjust the supply voltage to 3.1V.
- 6) The adjustment is complete if "BATTERY" is displayed on the monitor screen for a second when the PLAY key of operation unit is pressed.
- 7) The adjustment is regarded as proper if the auto shut-off is actuated after the warning is displayed when the TEST mode is cancelled.

* In case of automatic adjustment of shut-off voltage, adjustment is impossible if voltage is above $3.1V \pm 0.2V$.
If the adjustment is made at 2.9V or below, the low-voltage operation may become unstable.

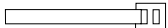
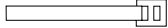



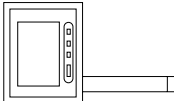
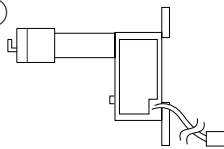

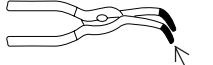
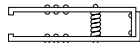
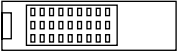
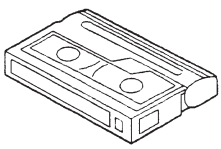
6-6. VCR section adjustments

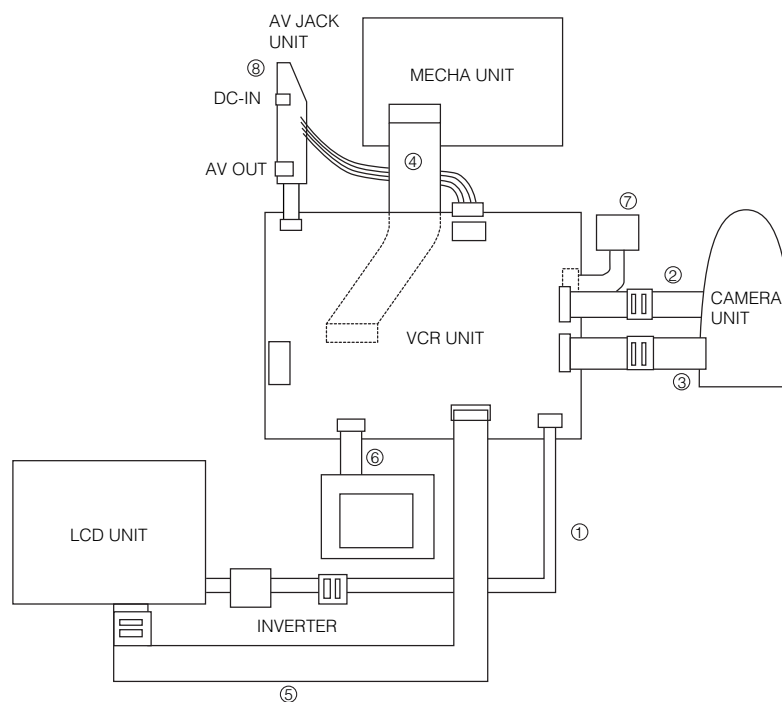
6-6-1. VCR section adjustments jigs

• Measuring instruments:

<ul style="list-style-type: none"> *Color monitor TV set *Digital voltmeter *DC power supply *Audio generator (CR oscillator) *Alignment tape (JiGWR5-5NSP) (JiGWR5-8NSE) 	<ul style="list-style-type: none"> *Oscilloscope *Frequency counter *Signal generator *AV output cable (accessory) *Video recording tape (For Y/C, audio and servo adjustments) 	<ul style="list-style-type: none"> *DC cable (AC adapter accessory) *Video extension cables *Vector scope *AC adapter
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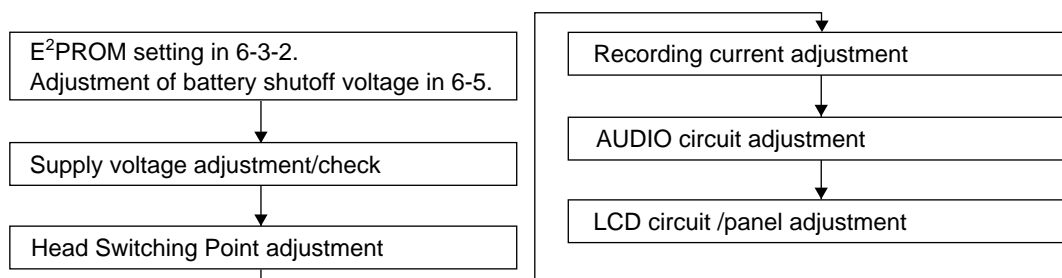
<Extension Cable etc.>

<p>①</p>  <p>1. Extension Cable Inverter~VCR (7pin) 2. QCNW-1265TAZZ 3. AX</p>	<p>②</p>  <p>1. Extension Cable Camera~VCR (20pin) 2. QCNW-1774TAZZ 3. BH</p>	<p>③</p>  <p>1. Extension Cable Camera~VCR (24pin) 2. QCNW-1382TAZZ 3. BD</p>	<p>④</p>  <p>1. Extension Cable MECHA~VCR (70pin) 2. QCNW-1534TAZZ 3. BS</p>	<p>⑤</p>  <p>1. Extension Cable LCD~VCR (24pin) 2. QCNW-1382TAZZ 3. BD</p>
<p>⑥</p>  <p>1. Operation Unit 2. QSW-Z0287TAZZ 3. AW</p>	<p>⑦</p>  <p>1. Battery Terminal Unit 2. QTANZ0146TAZZ 3. AK</p>	<p>⑧</p>  <p>1. AV Jack Unit 2. RUNTK0352TAZZ 3. AS</p>	 <p>insulating sleeve</p> <p>1. Connector fitting and withdrawing extractor</p>	 <p>1. Connector fitting and withdrawing tweezers 2. 9EQPINSET06GE 3. BR</p>
 <p>1. Service remote control 2. RRMCG0033TASA 3. BT</p>	 <p>• Alignment Tape JiGWR5-5NSP (NTSC) Normal 8 TAPE (MONO) JiGWR5-8NSE (NTSC) ... Hi8 TAPE (MONO) * Y/C Audio Alignment</p> <p>Configuration 1. Name 2. Part No. 3. Code 4. Note *Model, Uses Remarks</p>			



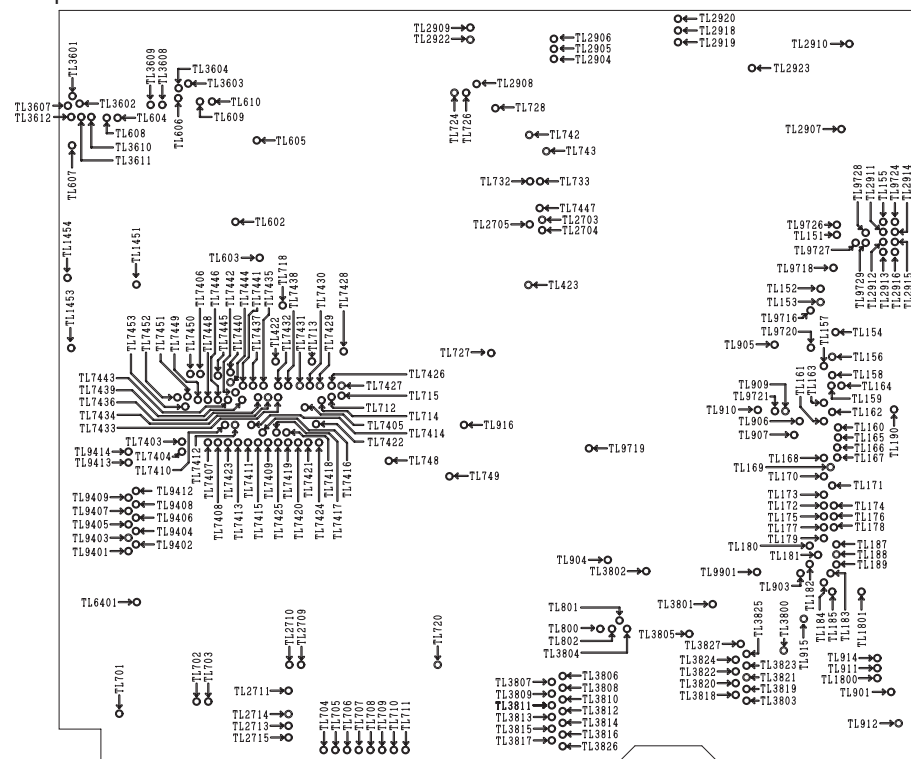
6-6-2. Procedure for VCR section adjustments

As the following explains all the procedures required for one series of adjustment for a VCR section, some of the items below are not necessary depending on the contents of its repair or adjustment.



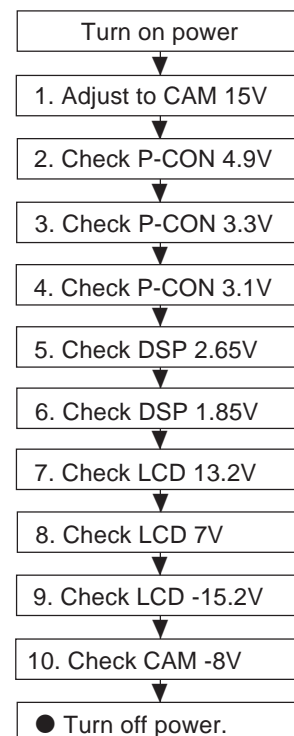
6-6-3. VCR circuit adjustment

- * Before adjusting the VCR circuit, make sure that the fixed value in 6-3-2 is written in E²PROM.
- Test points on the video circuit board.



6-6-3-1. Supply voltage adjustment/check

POWER CIRCUIT ADJUSTMENT PROCEDURE



POWER CIRCUIT ADJUSTMENT METHOD

- Input 7V from DC Jack, and set the power switch to the camera side.
- * Do not fail to fix the back light unit before adjusting them.

1. Adjustment to CAM 15V

Make an adjustment so that the digital voltmeter indicates 15V \pm 0.05V.

Measuring instrument	Digital voltmeter
Measuring terminal	TL905
Adjustment address	32h(VTR ADJ)
Standard	15V \pm 0.05V

2. Checking of P-CON 4.9V

Ascertain that the digital voltmeter indicates 4.9V \pm 0.1V.

Measuring instrument	Digital voltmeter
Measuring terminal	TL901
Adjustment address	
Standard	4.9V \pm 0.1V

3. Checking of P-CON 3.3V

Ascertain that the digital voltmeter indicates 3.3V \pm 0.1V.

Measuring instrument	Digital voltmeter
Measuring terminal	TL903
Adjustment address	
Standard	3.3V \pm 0.1V

4. Checking of P-CON 3.1V

Ascertain that the digital voltmeter indicates 3.1V \pm 0.1V.

Measuring instrument	Digital voltmeter
Measuring terminal	TL9718
Adjustment address	
Standard	3.1V \pm 0.1V

5. Checking of DSP 2.65V

Ascertain that the digital voltmeter indicates 2.65V \pm 0.25V.

Measuring instrument	Digital voltmeter
Measuring terminal	TL916
Adjustment address	
Standard	2.65V \pm 0.25V

6. Checking of DSP 1.85V

Ascertain that the digital voltmeter indicates 1.85V \pm 0.15V.

Measuring instrument	Digital voltmeter
Measuring terminal	TL910
Adjustment address	
Standard	1.85V \pm 0.15V

7. Checking of LCD 13.2V

Ascertain that the digital voltmeter indicates 13.2V \pm 0.2V.

Measuring instrument	Digital voltmeter
Measuring terminal	TL907
Adjustment address	
Standard	13.2V \pm 0.2V

8. Checking of LCD 7V

Ascertain that the digital voltmeter indicates 7V + 0.4/-0.5V.

Measuring instrument	Digital voltmeter
Measuring terminal	TL904
Adjustment address	
Standard	7V + 0.4/-0.5V

9. Checking of LCD -15.2V

Ascertain that the digital voltmeter indicates -15.2V \pm 1V.

Measuring instrument	Digital voltmeter
Measuring terminal	TL906
Adjustment address	
Standard	-15.2V \pm 1V

10. Checking of CAM -8V

Ascertain that the digital voltmeter indicates -8V \pm 0.5V.

Measuring instrument	Digital voltmeter
Measuring terminal	TL909
Adjustment address	
Standard	-8V \pm 0.5V

6-6-3-2. Head Switching Point Adjustment

- 1) Play back the alignment tape (JiGWR5-5NSP)
- 2) Press the "CONTINUE" key and "TEST SEL." key on the adjustment remote control to set the test mode.
(At this time the numeral of "T-01" blinks.)
- 3) Using the "FF" and "REW" keys, select "T-08", and press "PLAY" key to set the SW-P adjustment mode.
- 4) When the adjustment is completed, "HWP" is displayed and the tape is ejected.
When the adjustment is not proper, "NG" is displayed in the red frame of the LCD.

Measuring instrument	Oscilloscope
Mode	Playback
Adjustment address	30h
Tape	Alignment tape (JiGWR5-5NSP)

Only when the satisfactory result was not obtained by the adjusting method described above, perform the following adjustment.

- 1) Connect each signal to the oscilloscope.
1ch: SEP Y OUT TL1453
2ch: H-SW-P TL7417
GND: GND TL1454
- 2) Play back the alignment tape (JiGWR5-5NSP)
- 3) Press the "CONTINUE" key and "VTR ADJ" key on the adjustment remote control to set the VCR adjustment mode.
- 4) Select the address 30h, set the sync slope of oscilloscope to (-), and adjust the data with "REW" and "FF" so that the interval between the trigger point and the V sync signal is set to 6H, and fix the data with the "PLAY" button. (See Figure 6.1.1.)
- 5) Then, set the sync slope to (+), and ascertain that the interval between the trigger point and the V sync signal has been set to 6H. (See Figure 6.1.2.)
- 6) Keep the STOP key pressed for about 3 seconds to exit from the adjustment mode.

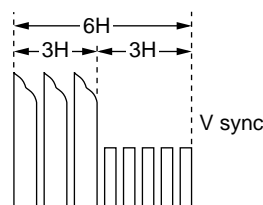


Figure 6.1.1

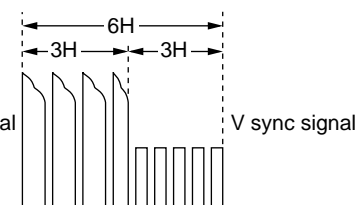


Figure 6.1.2

6-6-3-3. Y/C recording current adjustment

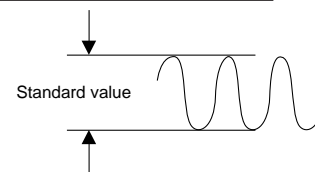
1. Y recording current adjustment
· Hi-8model (AH131U/AH151U/AH161U)

VTR ADJ	Mode	Address	Measuring point	Adjustment standard	Measuring instrument
REC Y current adjustment (Hi-8)	VCR	3F	TL9413(Sig)	ME 130±5mVP-P	Oscilloscope
		40		MP 95±5mVP-P	
REC Y current adjustment (Nor 8)	STOP	41	TL9414(Gnd)	ME 125±5mVP-P	
		42		MP 120±5mVP-P	

- Nor8model (VL-A111U)

VTR ADJ	Mode	Address	Measuring point	Adjustment standard	Measuring instrument
REC Y current adjustment (Nor 8)	VCR STOP	42	TL9413(Sig) TL9414(Gnd)	MP 120±5mVP-P	Oscilloscope

- (1) Enter the VCR STOP mode.
- (2) Select the above applicable address with the adjustment remote control.
- (3) Measurement signal is output to TL9413.
- (4) Adjust the amplitude so as to get the adjustment standard value at TL9413(Sig) and TL9414(Gnd).



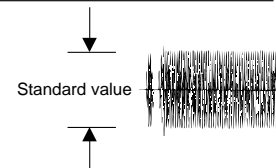
2. C recording current adjustment
· Hi-8model (AH131U/AH151U/AH161U)

VTR ADJ	Mode	Address	Measuring point	Adjustment standard	Measuring instrument
REC C current adjustment (Hi-8)	VCR	43	TL9413 (Sig)	ME 115±5mVP-P	Oscilloscope
		44		MP 105±5mVP-P	
REC C current adjustment (Nor 8)	STOP	45	TL9414 (Gnd)	ME 135±5mVP-P	
		46		MP 120±5mVP-P	

- Nor8model (VL-A111U)

VTR ADJ	Mode	Address	Measuring point	Adjustment standard	Measuring instrument
REC C current adjustment (Nor 8)	VCR STOP	46	TL9413 (Sig) TL9414 (Gnd)	MP 120±5mVP-P	Oscilloscope

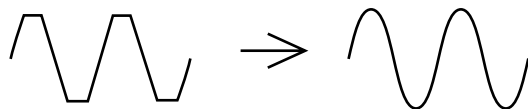
- (1) Enter the VCR STOP mode.
- (2) Select the above applicable address with the adjustment remote control.
- (3) Measurement signal is output to TL9413.
- (4) Adjust the amplitude so as to get the adjustment standard value at TL9413(Sig) and TL9414(Gnd).



6-6-3-4. Adjustment of audio circuit

1. Adjustment of filter f0

Measuring instrument	Oscilloscope
Mode	PB
Input signal (tape)	JiGWR5-5NSP
Measuring terminal	TL605/AUDIO.OUT
Adjustment address	33 (VTR ADJ)
Set value	Clear the waveform



- 1) Set the alignment tape (JiGWR5-5NSP).
- 2) Using the adjustment remote control (RRMCG0033TASA), set the VCR adjustment mode, and set the address "33" with the operation switch ("FF", "REW" key).
- 3) Play back the standard tape.
- 4) Using the operation switch ("FF", "REW" key), make an adjustment so that the most clear playback waveform is obtained on TL605.
- 5) Press the operation switch ("PLAY" key) to write the data.
- 6) Press the operation switch ("STOP" key) to exit from the address "33".
(The address "33" blinks.)

Audio check (Check of recording/playback using the same unit)

- (1) In the camera mode, perform recording with the sound input to the microphone.
- (2) Play back the recorded portion to check that the recorded sound is heard from the output terminal or built-in speaker.
- (3) If excessive noise is recorded, repeat steps (1) - (6) and check the recording/playback again.

6-6-3-5. Adjustment of LCD display circuit

1. Inverter input Voltage Setting

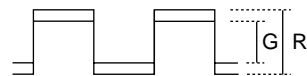
VTR ADJ		
Address	Data(3 type)	Data(3.5 type)
50	8F	95
51	8A	90
52	6F	74

2. Dac full-Scale adjustment

Measuring point	TL1801 (G-OUT)
Address(VTR ADJ)	039
Mode	VCR
Adjusting method	1) Set the data of address 082 to 80, address 0A2 to 00, address 0A5 to 80. 2) Connect TL3804 to P-CON 3.1V. 3) Connect the Digital voltmeter to TL801 and adjust the DC volt. 4) Set the data of address 082 to 40, address 0A2 to 28. (Restore)
Adjustment standard	0.78V \pm 10mV
Remarks	

3. R-W/B adjustment

Measuring point	TL3814 (G-OUT) TL3813 (R-OUT)
Address(VTR ADJ)	090
Mode	VCR
Adjusting method	1) Set the data of address 082 at the address 80. 2) TL3814 (G-OUT): Oscilloscope CH1 TL3813 (R-OUT): Oscilloscope CH2 3) Adjust P-P of TL3813 to make it larger then TL3814 by 0.15V. 4) Set the data of address 082 at the address 40. (Restore)
Adjustment standard	$\pm 0.1V_{p-p}$
Remarks	



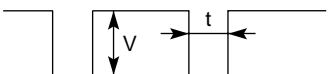
4. B-W/B adjustment

Measuring point	TL3814 (G-OUT) TL3815(B-OUT)
Address(VTR ADJ)	092
Mode	VCR
Adjusting method	1) Set the data of address 082 at the address 80. 2) TL3814 (G-OUT): Oscilloscope CH1 TL3815 (B-OUT): Oscilloscope CH2 3) Adjust P-P of TL3815 to make it larger then TL3814 by 0.1V. 4) Set the data of address 082 at the address 40. (Restore)
Adjustment standard	$\pm 0.1V_{p-p}$
Remarks	

5. VCO adjustment

Measuring point	TL3802
Address(VTR ADJ)	03E
Mode	VCR
Adjusting method	1) Connect TL3803 to GND. 2) Connect the frequency counter to TL3802, and adjust the frequency.
Adjustment standard	15.734kHz \pm 100Hz
Remarks	_____

6. H-position adjustment

Measuring point	TL3802
Address(VTR ADJ)	03B
Mode	VCR
Adjusting method	1) Connect the oscilloscope to TL3802, and adjust the pulse width. 
Adjustment standard	3 type: 2.8 μ sec \pm 0.15 μ sec (A111U/AH131U/AH151U), 3.5 type: 3.7 μ sec \pm 0.15 μ sec (AH161U)
Remarks	_____

7. COMMON PULSE adjustment

Measuring point	TL1801
Address(VTR ADJ)	037
Mode	VCR
Adjusting method	1) Set the data of address 0A5 at the address 80. 2) Connect TL1800 to GND. 3) Connect the Digital voltmeter to TL1801, and adjust the DC Volt.
Adjustment standard	6.85V \pm 50mV
Remarks	_____

8. COM-BIAS adjustment

Measuring point	LCD panel display surface
Address(VTR ADJ)	03C
Mode	VCR
Adjusting method	1) Set data of address 0A5 at the address 80 and address 082 at the address A9. 2) Set the illuminometer (TOPCON IM-3) on the LCD panel surface (do not allow entry of external light). 3) Connect the illuminometer to the oscilloscope. 4) Make an adjustment so as to minimize the ripple of output waveform. Response time: 0.6 sec 5) Adjust again if longitudinal stripe appears evidently. 6) Set data of address 082 at the address 40. (Restore) * Or set to the point where the black is settled deepest with the grey scale signal.
Adjustment standard	Minimum
Remarks	Make an adjustment after aging for 5 minutes or more.

9. W/B adjustment

Measuring point	LCD panel display surface
Address(VTR ADJ)	090, 092
Mode	VCR
Adjusting method	1) Set data of address 0A5 at the address 80, and address 082 at the address A9. 2) Adjust so as to get the same white screen as that of standard monitor. (Adjust again, visually checking as stated in items 3 and 4.) 3) Set data of address 082 at the address 40. (Restore)
Adjustment standard	Standard monitor
Remarks	Make an adjustment after aging for 5 minutes or more.

6-7. CAM section adjustment





6-7-1. CAM section adjustment jigs

(1) Object, measuring instrument and jigs necessary for camera section servicing

<ul style="list-style-type: none"> • Gray scale chart • Vectorscope • Extension cable • Oscilloscope • Video output cable 	<ul style="list-style-type: none"> • Color bar chart • Color temperature conversion filter HOYA "LB-165" • Digital voltmeter 	<ul style="list-style-type: none"> • Halogen light (2 pcs.) • Color video monitor • AC adapter • Service Remote Control
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Configuration

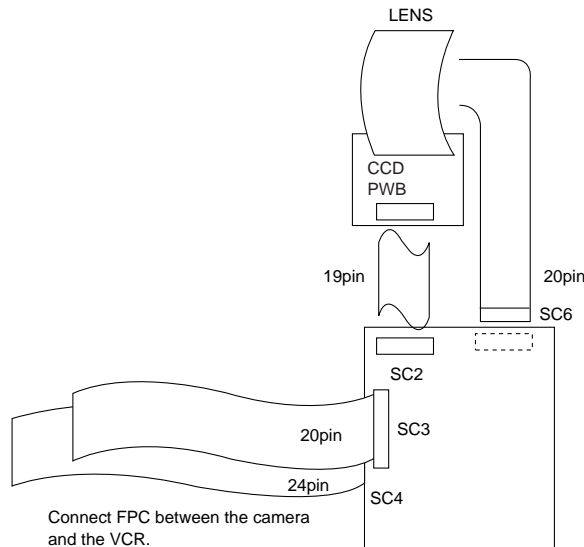
<Note: The entries of list> 1. Name 2. Part No. 3. Code

 <ol style="list-style-type: none"> 1. Gray Scale Chart (390 x 520 mm) 2. JiGCHART-1 3. CP 	 <ol style="list-style-type: none"> 1. Color Bar Chart (240 x 320 mm) 2. JiGCHART-4 3. DA 	 <ol style="list-style-type: none"> 1. Color Temperature Conversion Filter 2. JiGHOYA-LB165 3. BN 	 <ol style="list-style-type: none"> 1. Service Remote Control 2. RRMCG0033TASA 3. BT
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Note:

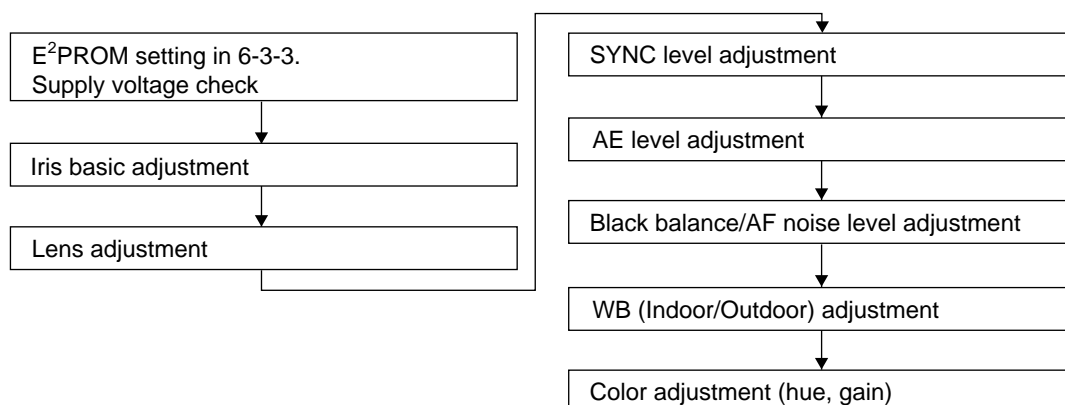
1. Color temperature conversion filter may be obtained from HOYA Optics in your local market.
2. N: Indicates the new jigs.

• Connections for Camera Section Servicing



6-7-2. Procedure for CAM section adjustments

As the following explains all the procedures required for one series of adjustment for a camera section, some of them are not necessary depending on the contents of its repair or adjustment.



6-7-3. CAM circuit adjustment

* Before adjusting the CAM circuit, make sure that the fixed value in 6-3-3 is written in E²PROM.

6-7-3-1. Supply voltage check

Check that the voltages at the following TL are within the specified range (refer to the supply voltage adjustment/check under VCR circuit adjustment).

Measuring point	Item	SPEC
TL0137	P-CON_4.9V	4.9V
TL0138	P-CON_3.1V	3.1V
TL0140	P-CON_5.7V	5.7V

Measuring point	Item	SPEC
TL0142	CAM_15V	15V
TL0143	CAM_-8V	-8V

6-7-3-2. Basic iris adjustment

Mode	CAM ADJ
Measuring instrument	—
Subject	Not specified
Measuring point	—
Adjustment address	71
Adjustment reference	09, 0A, 0B

DATA	Description
09	Hole offset adjustment
0A	Iris offset adjustment
0B	Iris close adjustment

- 1) Write ADD:70 DATA:01 and enter the lens system adjustment mode.
- 2) Write DATA "09" in ADD "71" (and confirmed with "PB" the key).
* Press the "STOP" key to reconfirm ADD "71". Adjustment is completed when "FF" is returned to DATA.
- 3) Write ADD "0A" and "0B" in sequence in the same manner.
- 4) Write ADD:70 DATA:FF and exit the lens system adjustment mode.

6-7-3-3. Lens adjustment

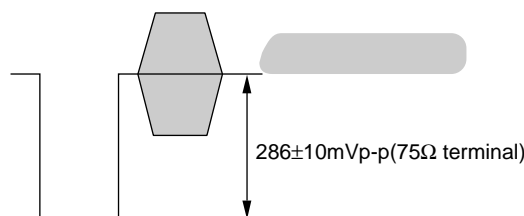
Mode	CAM ADJ
Measuring instrument	—
Subject	Subject more than 50m away
Measuring point	—
Adjustment address	71
Adjustment reference	12, 06, 08, 0D

DATA	Description
12	Optical wide lens adjustment
06	Wide lens infinite adjustment
08	Tele lens infinite adjustment
0D	Zoom tracking adjustment

- 1) Expose a subject that is more than 50m away. (Nearby subject less than 50m away should not be in the screen.)
- 2) Write ADD:70 DATA:01 and enter the lens system adjustment mode.
- 3) Write DATA "12" in ADD "71" (confirmed with "PB" key).
* Press the "STOP" key to reconfirm ADD "71". Adjustment is completed when "FF" is returned to DATA.
- 4) Write ADD "06", "08" and "0D" in sequence in the same manner.
- 5) Write ADD:70 DATA:FF and exit the lens system adjustment mode.

6-7-3-4. SYNC level adjustment

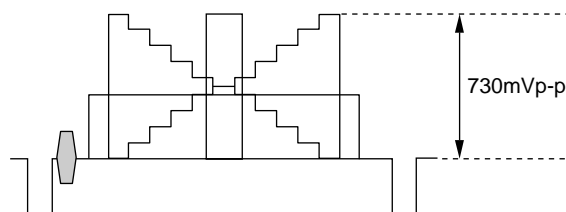
Mode	CAM ADJ
Measuring instrument	Oscilloscope
Subject	Shielded
Measuring point	VIDEO OUT
Adjustment address	74
Adjustment reference	286±10mVp-p



- 1) Terminate VIDEO OUT at 75Ω (preferably with resistance lower than 1%).
- 2) Use a black subject or shield the subject.
- 3) Write DATA "00" in ADD "70" and enter the camera adjustment mode.
- 4) Vary ADD "74" data to adjust it to the specification.
- 5) After confirming the adjustment in step (4), write ADD:70 DATA:FF and exit the camera adjustment mode.

6-7-3-5. SYNC level adjustment

Mode	CAM ADJ
Measuring instrument	Oscilloscope
Subject	Gray scale
Measuring point	VIDEO OUT
Adjustment address	9C
Adjustment reference	730±10mVp-p



- 1) Terminate VIDEO OUT at 75Ω (preferably with resistance lower than 1%).
- 2) Record the gray scale (JIGCHART-1).
- 3) Write DATA "00" in ADD "70" and enter the camera adjustment mode.
- 4) Vary ADD "9C" data to adjust it to the specification.
- 5) After confirming the adjustment in step (4), write ADD:70 DATA:FF and exit the camera adjustment mode.

6-7-3-6. Black balance, AF noise level adjustment

Mode	CAM ADJ
Measuring instrument	—
Subject	Not specified
Measuring point	—
Adjustment address	71
Adjustment reference	01

- 1) Write ADD:71 DATA:01.
- 2) Press the “STOP” key to reconfirm ADD “71”. Adjustment is completed when “FF” is returned to DATA.

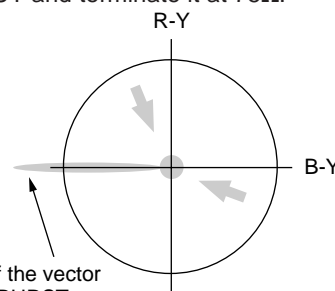
6-7-3-7. White balance adjustment (Indoor)

Mode	CAM ADJ
Measuring instrument	Vector scope
Subject	Gray scale
Measuring point	VIDEO OUT
Adjustment address	00, 02
Adjustment reference	Minimum focus

[Presetting]

- 1) Maximize the gain of the vector scope so that the source comes to the intersection of R-Y and B-Y axes in the no signal state.
- 2) Connect the vector scope to VIDEO OUT and terminate it at 75Ω.
- 3) Record the gray scale (JIGCHART-1).

- 1) Write DATA “70” in ADD “70” and enter the camera adjustment mode.
- 2) Vary ADD “00” data to adjust it to the specification.
- 3) Vary ADD “02” data to adjust it to the specification.
- 4) Repeat steps 2) - 3) to bring the source into the minimum focus.
- 5) After confirming the adjustment above, write ADD:70 and DATA:FF and exit the camera adjustment mode.



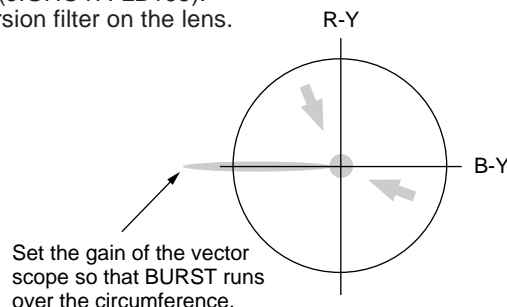
6-7-3-8. White balance adjustment (Outdoor)

Mode	CAM ADJ
Measuring instrument	Vector scope
Subject	Gray scale
Measuring point	VIDEO OUT
Adjustment address	6C, 6E
Adjustment reference	Minimum focus

[Presetting]

- 1) Maximize the gain of the vector scope so that the source comes to the intersection of R-Y and B-Y axes in the no signal state.
- 2) Connect the vector scope to VIDEO OUT and terminate it at 75Ω.
- 3) Record the gray scale (JIGHOYA-LB165).
- 4) Mount the color conversion filter on the lens.

- 1) Write DATA “00” in ADD “70” and enter the camera adjustment mode.
- 2) Vary ADD “6C” data to adjust it to the specification.
- 3) Vary ADD “6E” data to adjust it to the specification.
- 4) Repeat steps 2) - 3) to bring the source into the minimum focus.
- 5) After confirming the adjustment above, write ADD:70 and DATA:FF and exit the camera adjustment mode.



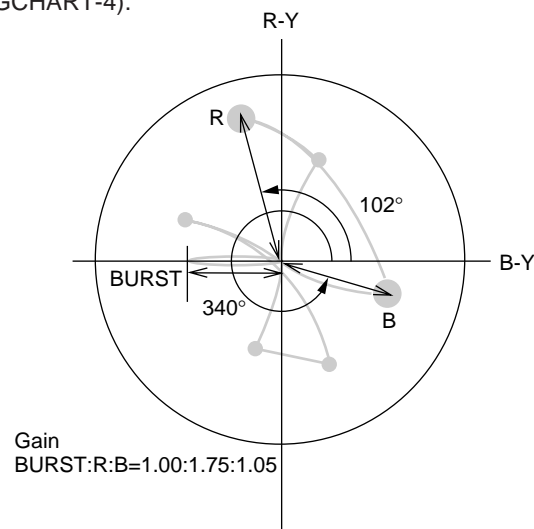
6-7-3-9. Color adjustment

Mode		CAM ADJ
Measuring instrument		Vector scope
Subject		Gray scale
Measuring point		VIDEO OUT
Adjustment reference		
ADD	Item	SPEC
1C4	R-Gain	1.75 ± 0.1 times (burst ratio)
1C2	B-Gain	1.05 ± 0.1 times (burst ratio)
1C0	B-Phase	340 ± 2°
1BE	R-Phase	102 ± 2°

[Presetting]

- 1) Set the source at the intersection of R-Y and B-Y axes in the no signal state.
- 2) Connect the vector scope to VIDEO OUT and terminate it at 75Ω.
- 3) Record the color bar (JIGCHART-4).

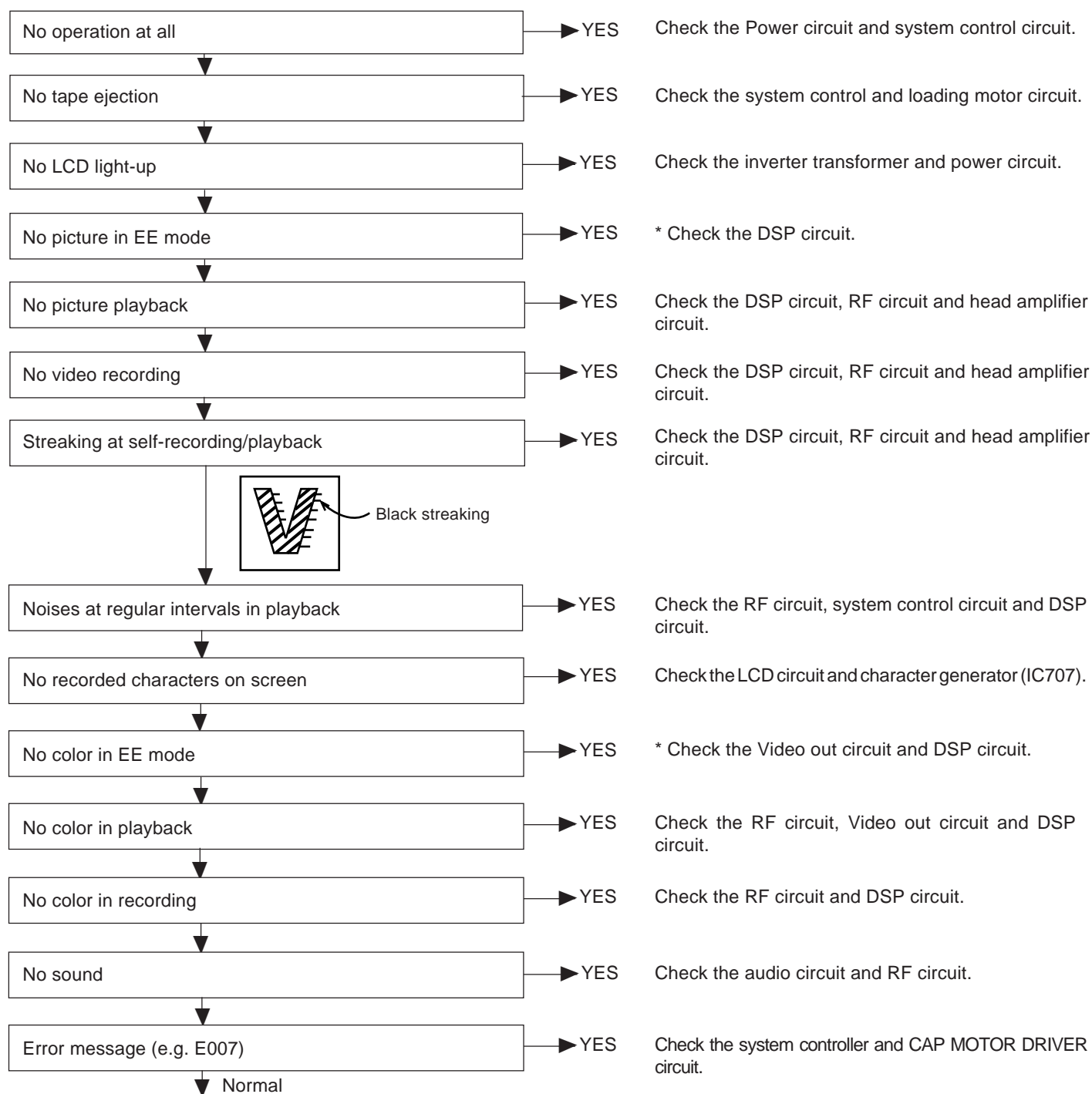
- 1) Write DATA “00” in ADD “70” and enter the camera adjustment mode.
- 2) Vary ADD “1C4” data to adjust it to the specification.
- 3) Vary ADD “1C2” data to adjust it to the specification.
- 4) Vary ADD “1C0” data to adjust it to the specification.
- 5) Vary ADD “1BE” data to adjust it to the specification.
- 6) Repeat steps 2) - 5) and adjust Gain and Phase of R and B to the specification.
- 7) After confirming the adjustment above, write ADD:70 and DATA:FF and exit the camera adjustment mode.



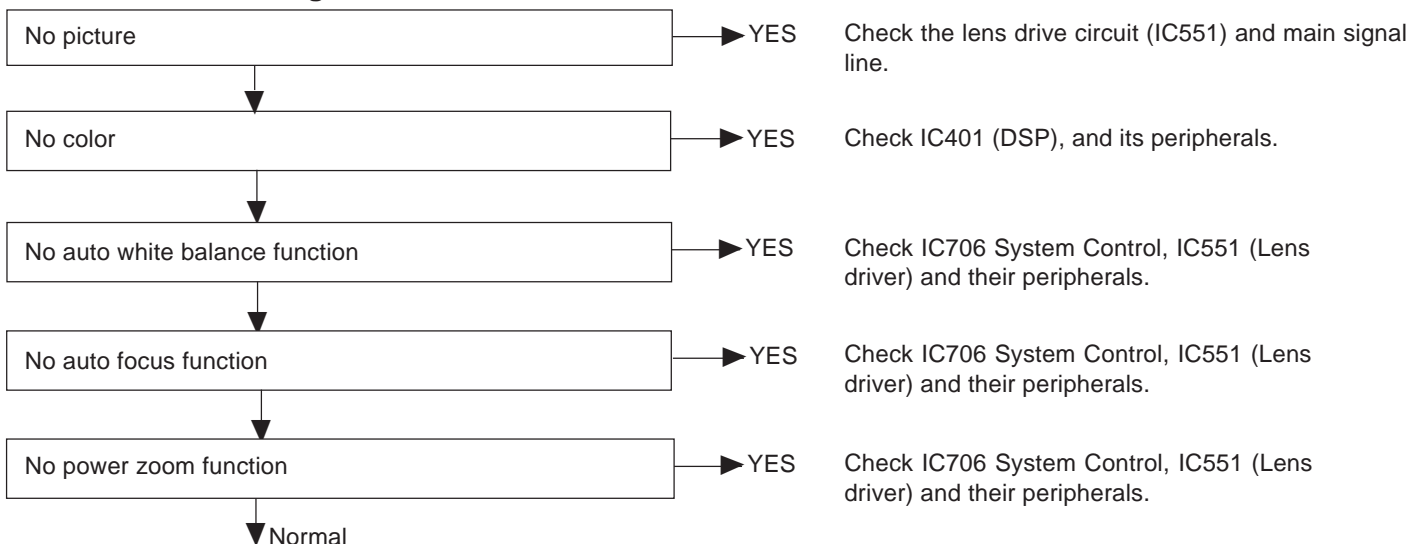
* Be sure to set ADD:70 CAM ADJ data to “FF” after adjusting the camera circuit section.

6-8. TROUBLE SHOOTING

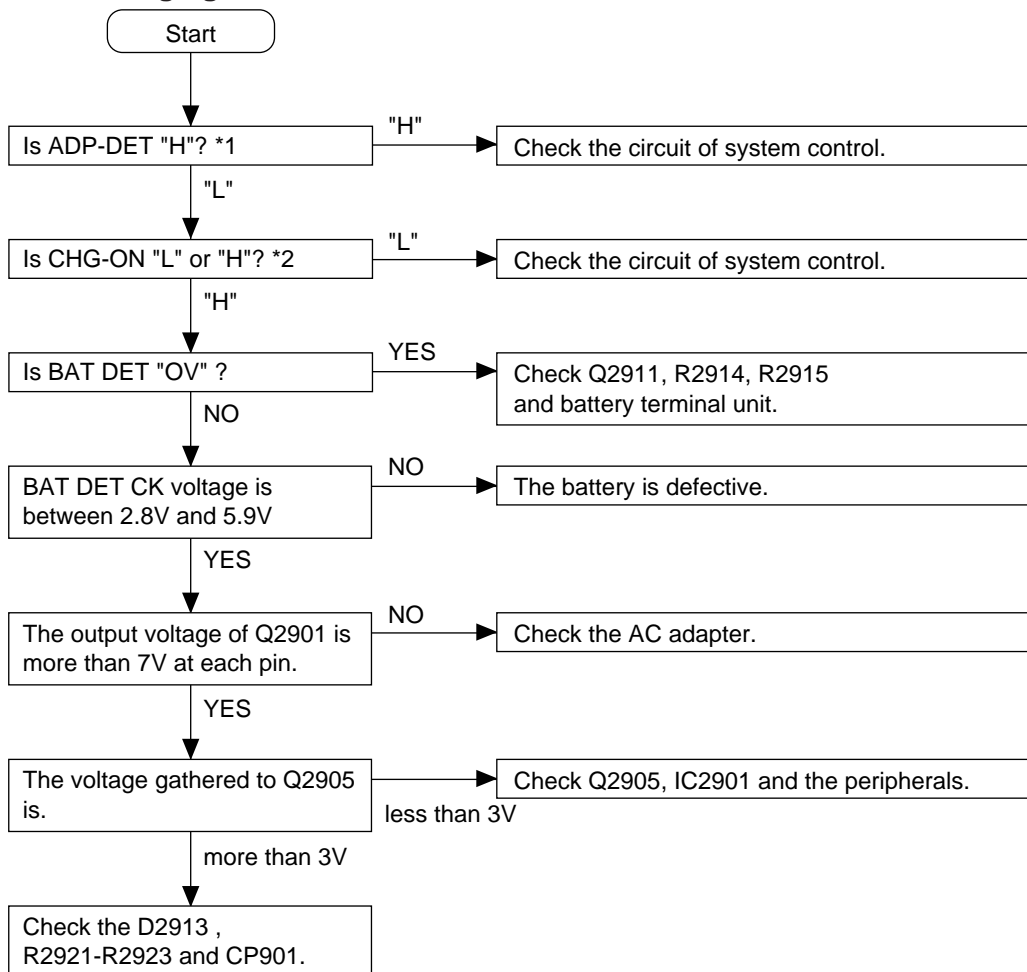
6-8-1. Classification of troubles



6-8-2. Troubleshooting for the camera section

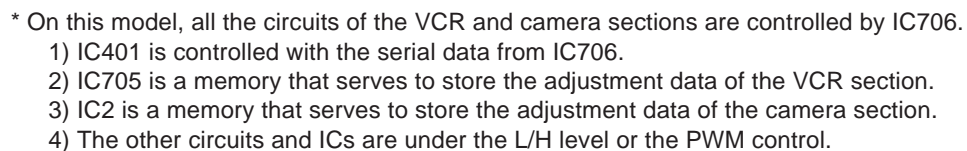


6-8-3. Charging mode troubles



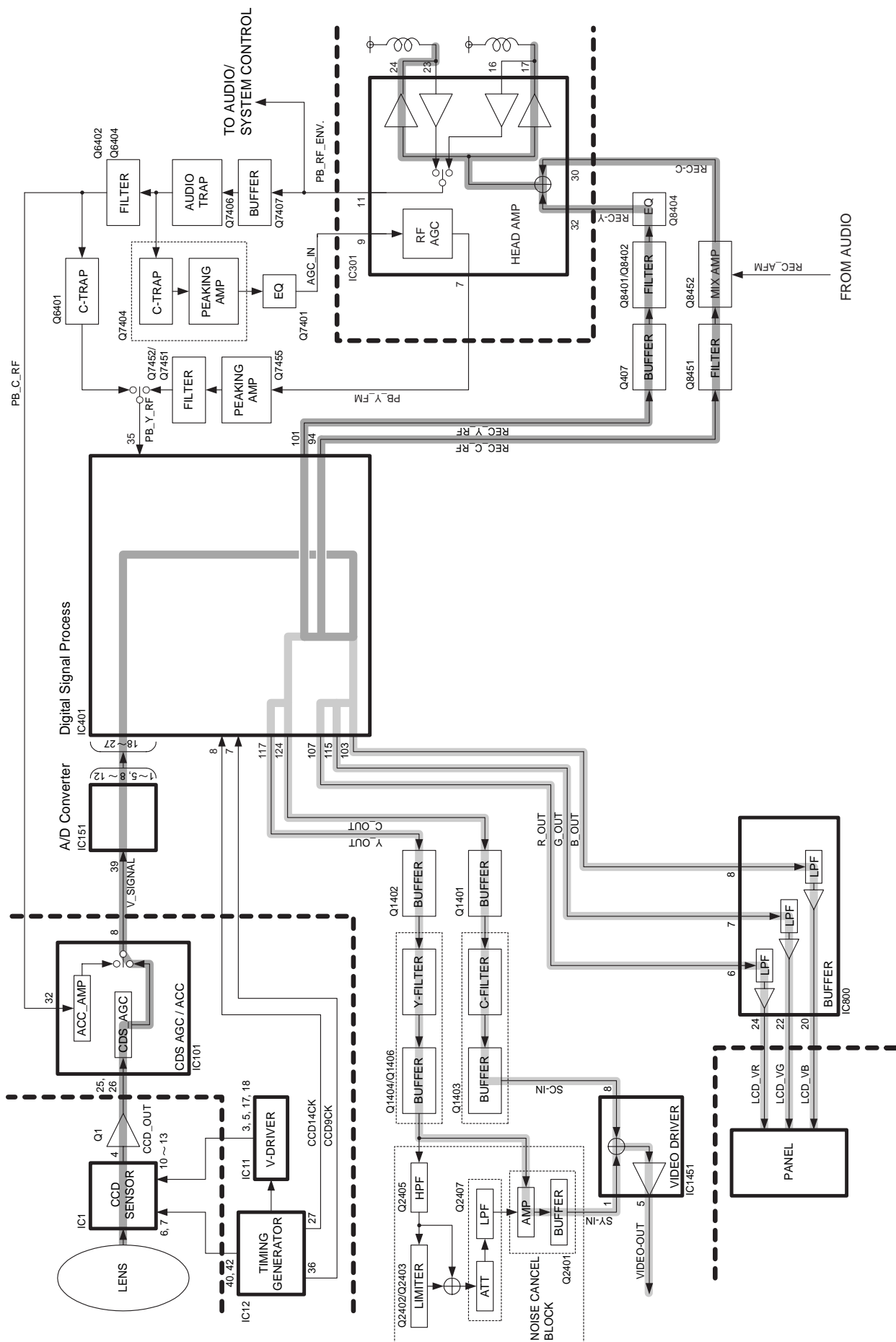
*1: Enter "L" into ADP-DET with the DC power on.

*2: Enter "H" into CHG ON in the charging mode.

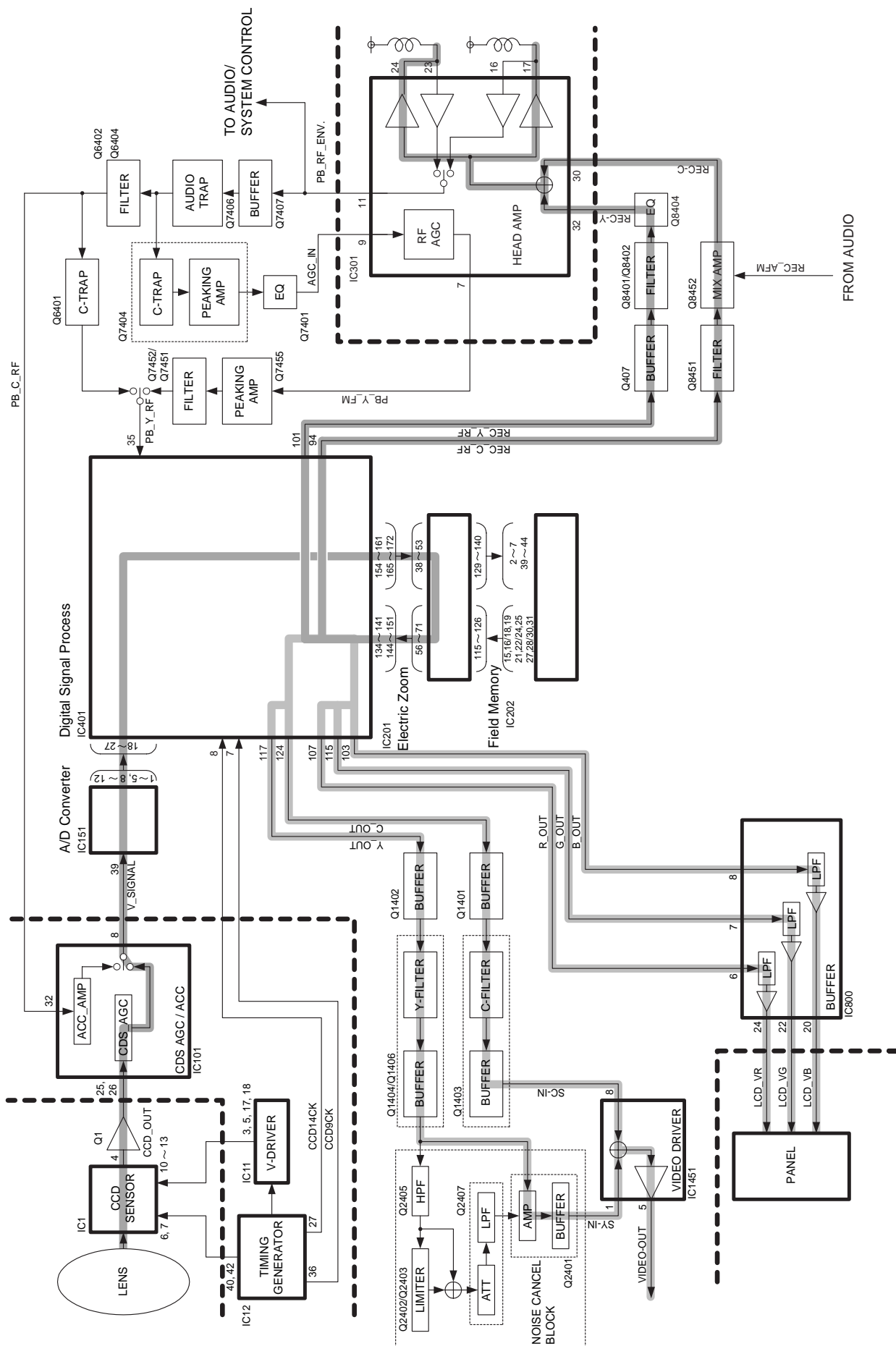




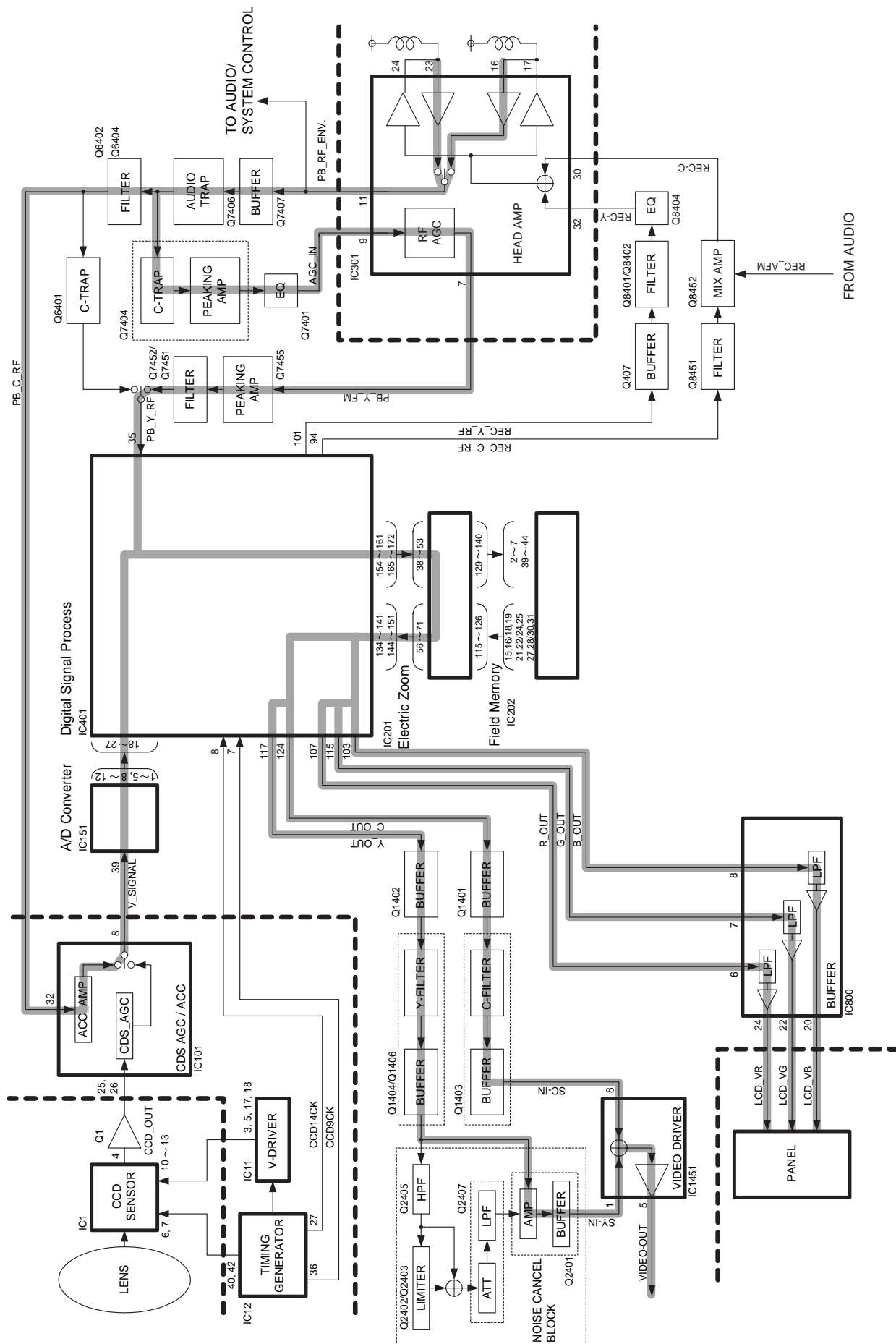
7-2-1. RECORDING SIGNAL FLOW (VL-A111U/AH131U)



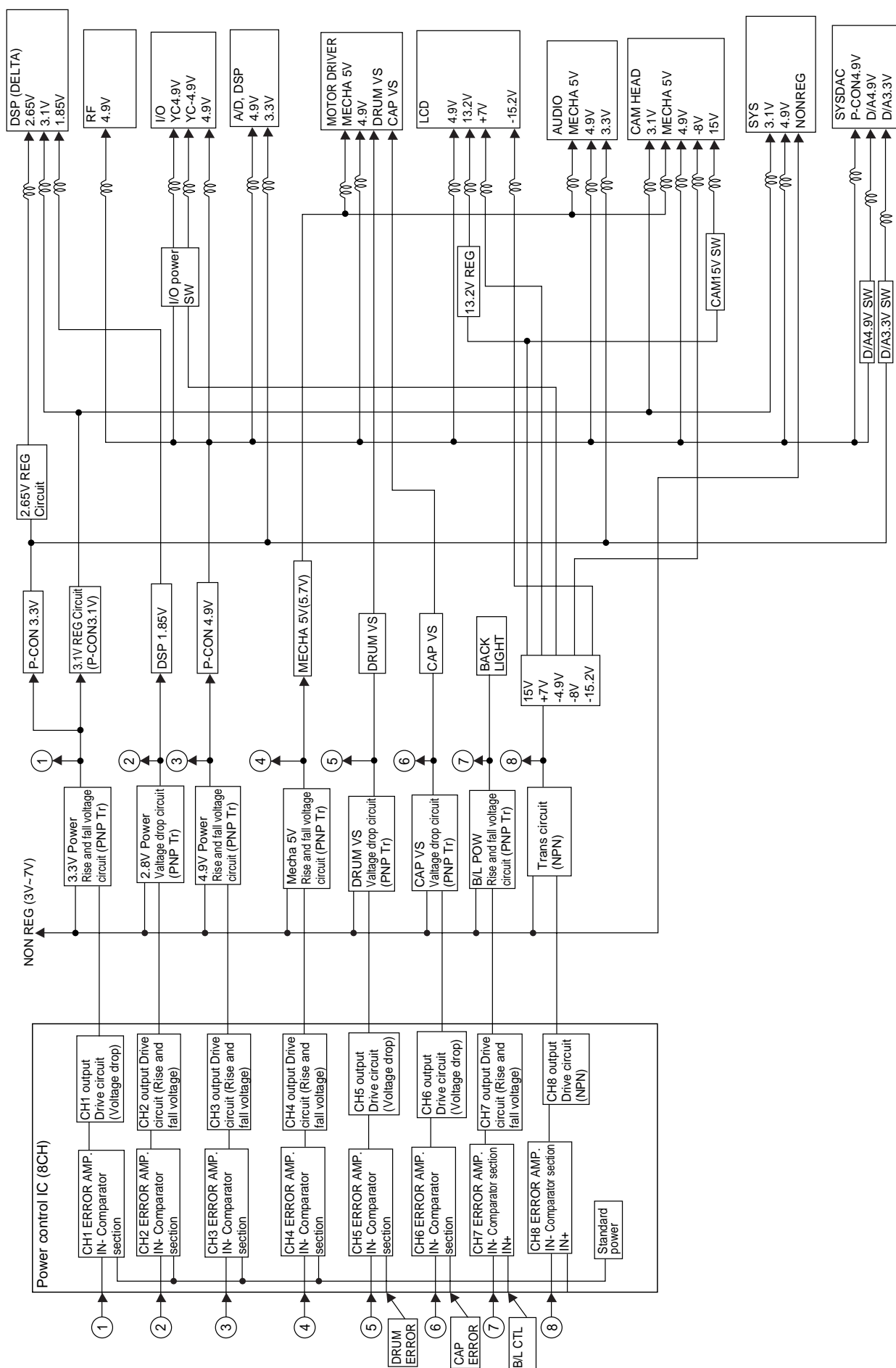
7-2-3. RECORDING SIGNAL FLOW (VL-AH151U/AH161U)



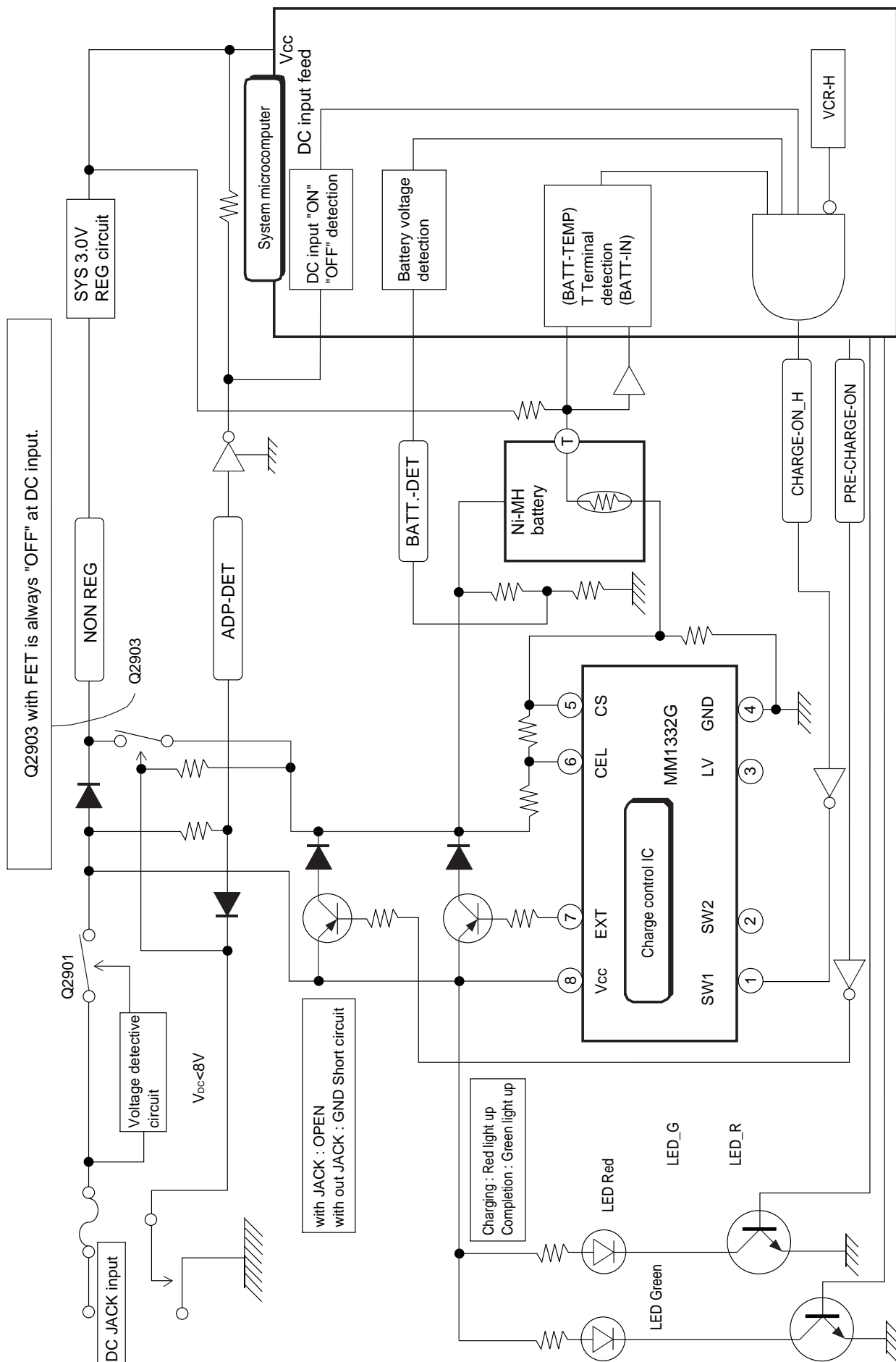
7-2-4. PLAY BACK SIGNAL FLOW (VL-AH151U/AH161U)



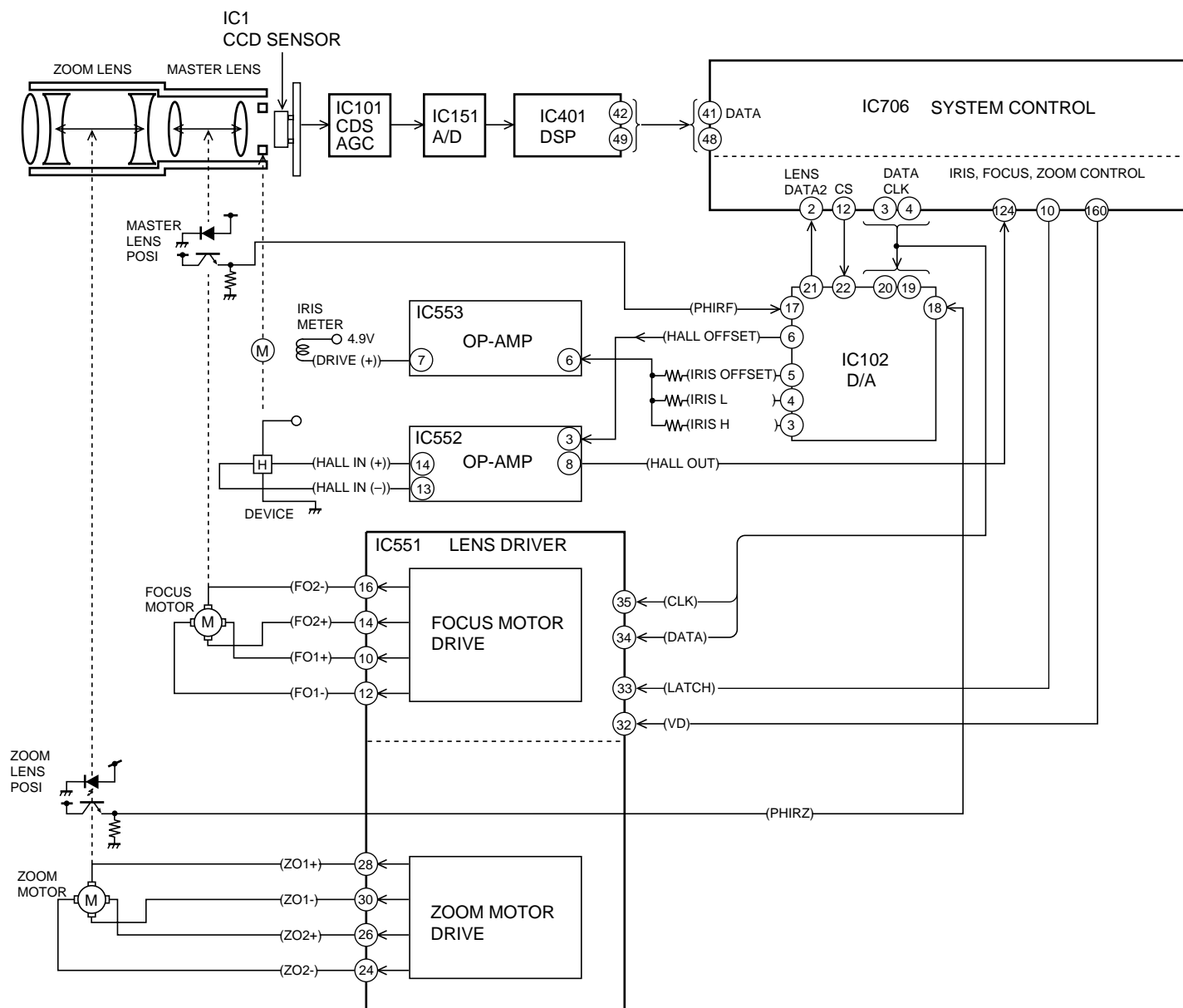
7-3. POWER SYSTEM BLOCK DIAGRAM



7-4. MAIN BATTERY CIRCUIT SECTION BLOCK DIAGRAM

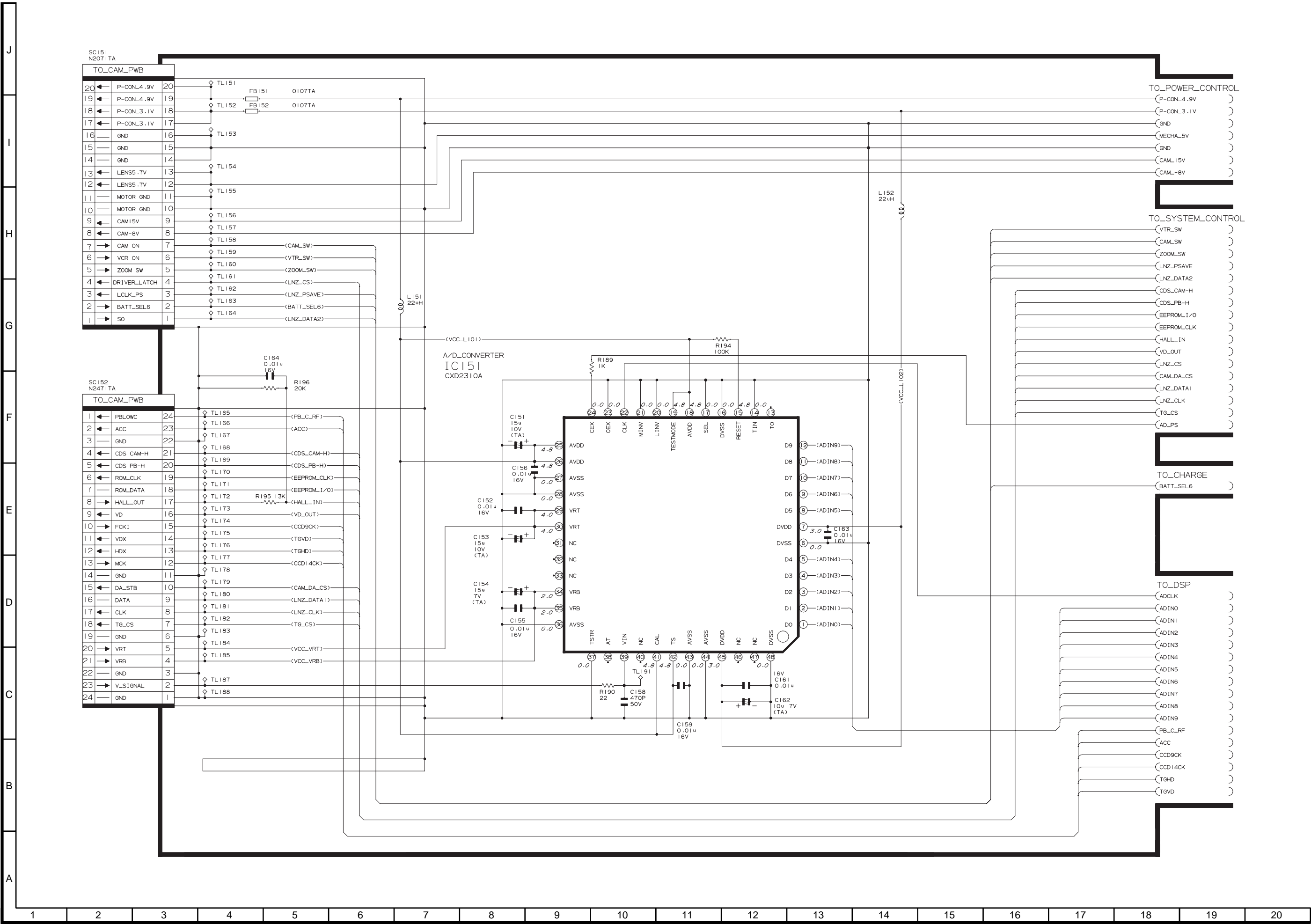


7-5. LENS DRIVE BLOCK DIAGRAM

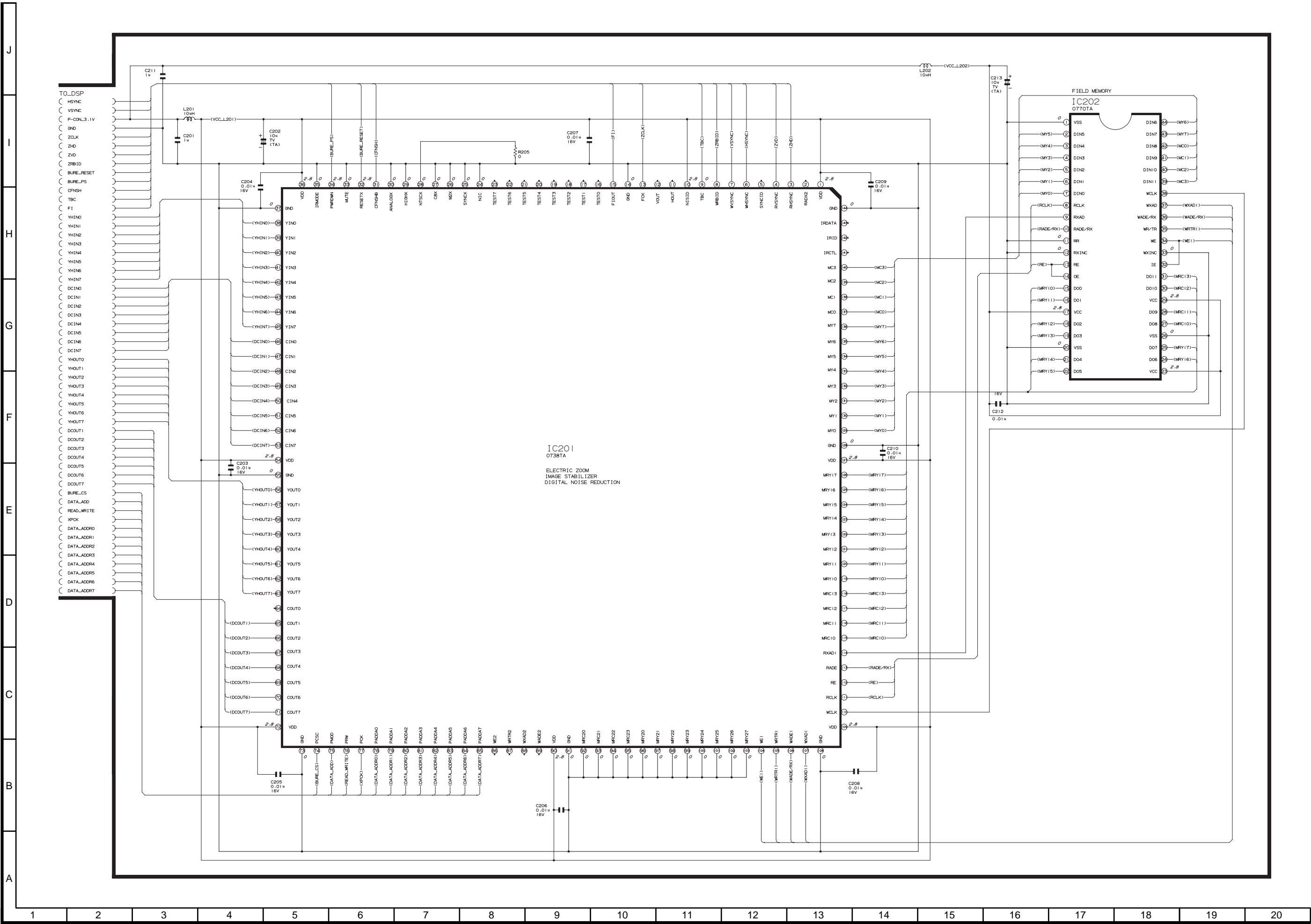




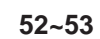
8-2. A/D_CONVERTER SCHEMATIC DIAGRAM



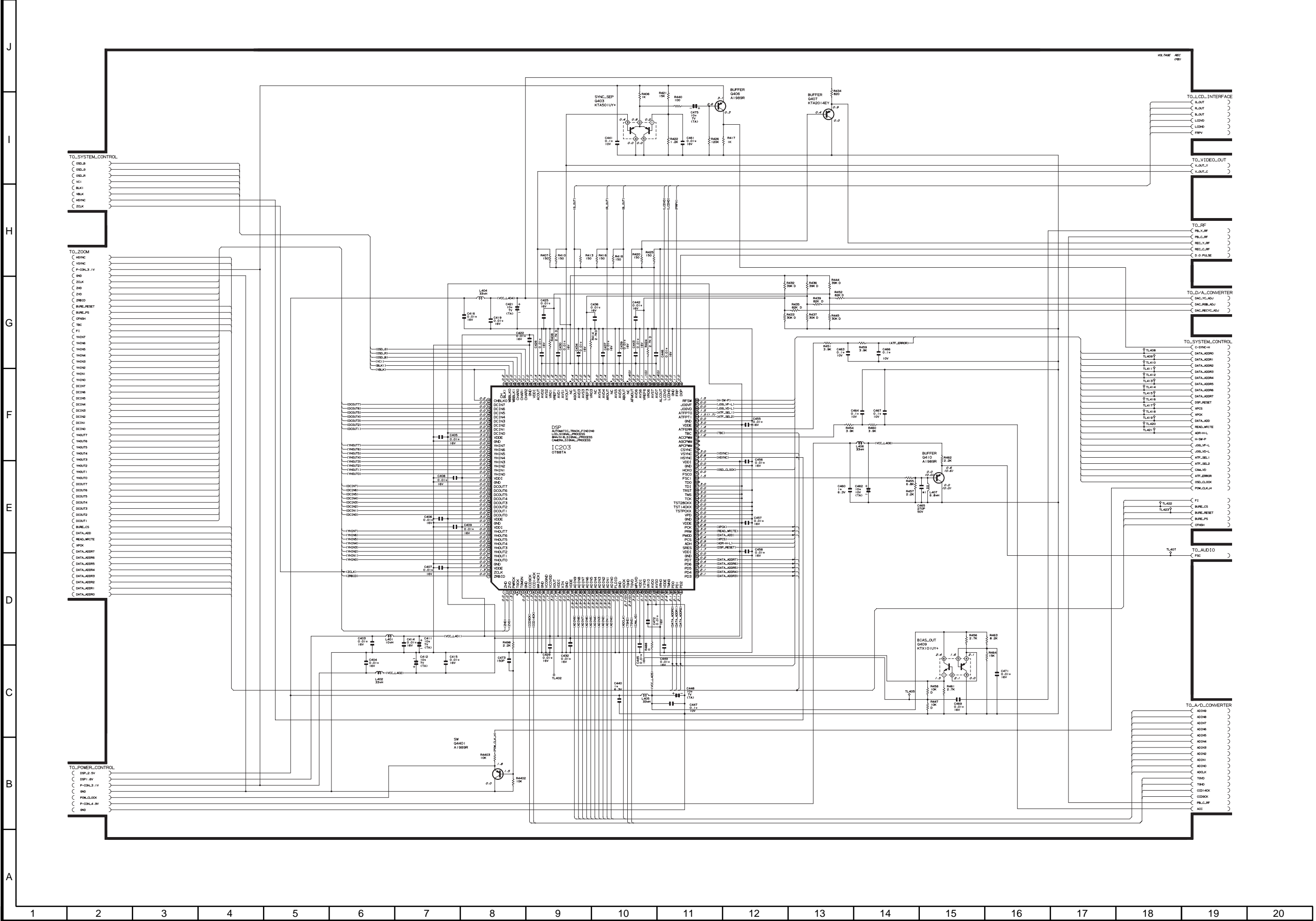
8-3. ZOOM SCHEMATIC DIAGRAM(VL-AH151U/AH161U only)

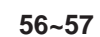


8-4. DSP SCHEMATIC DIAGRAM(VL-A111U/AH131U)

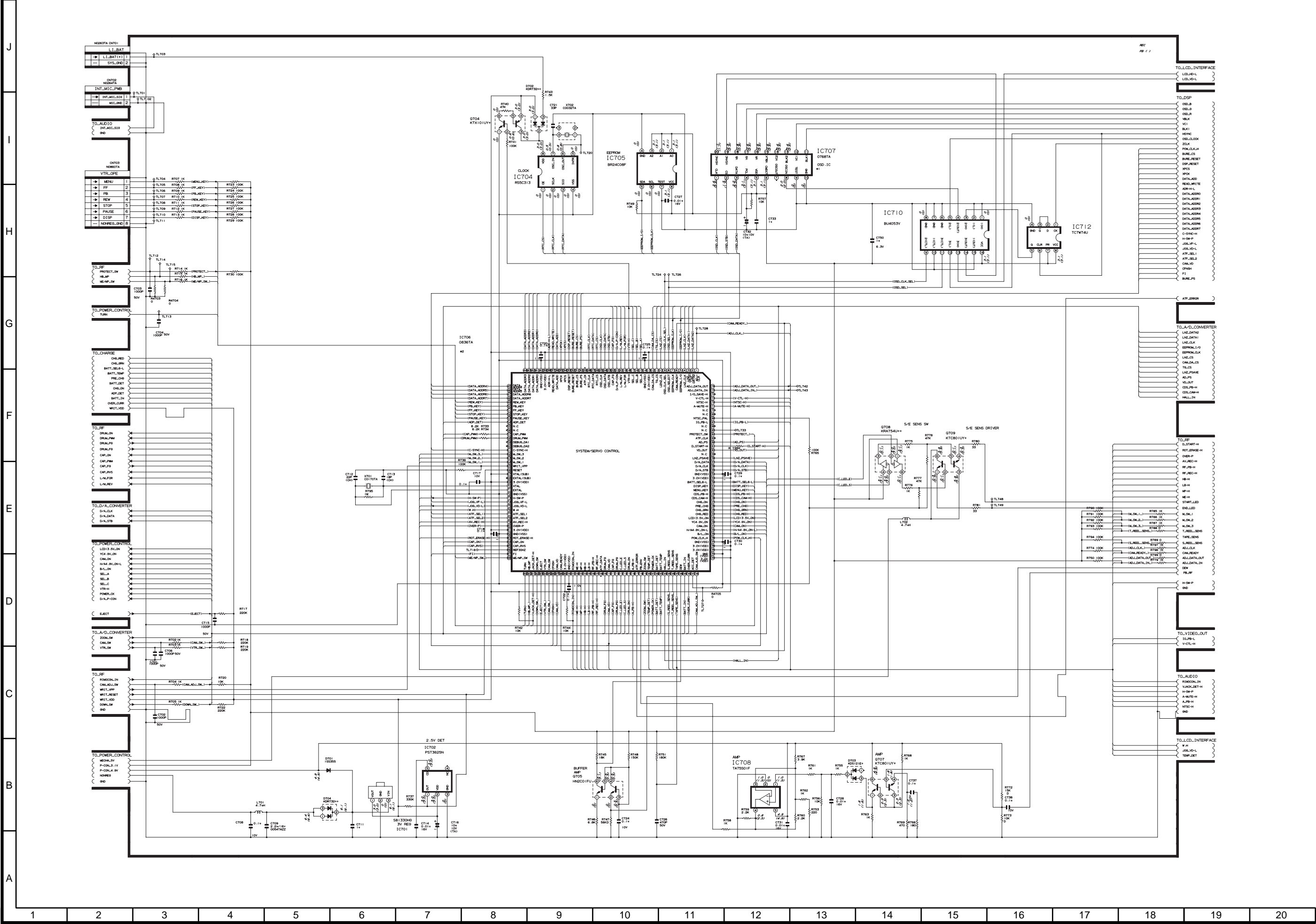


8-4. DSP SCHEMATIC DIAGRAM(VL-AH151U/AH161U)

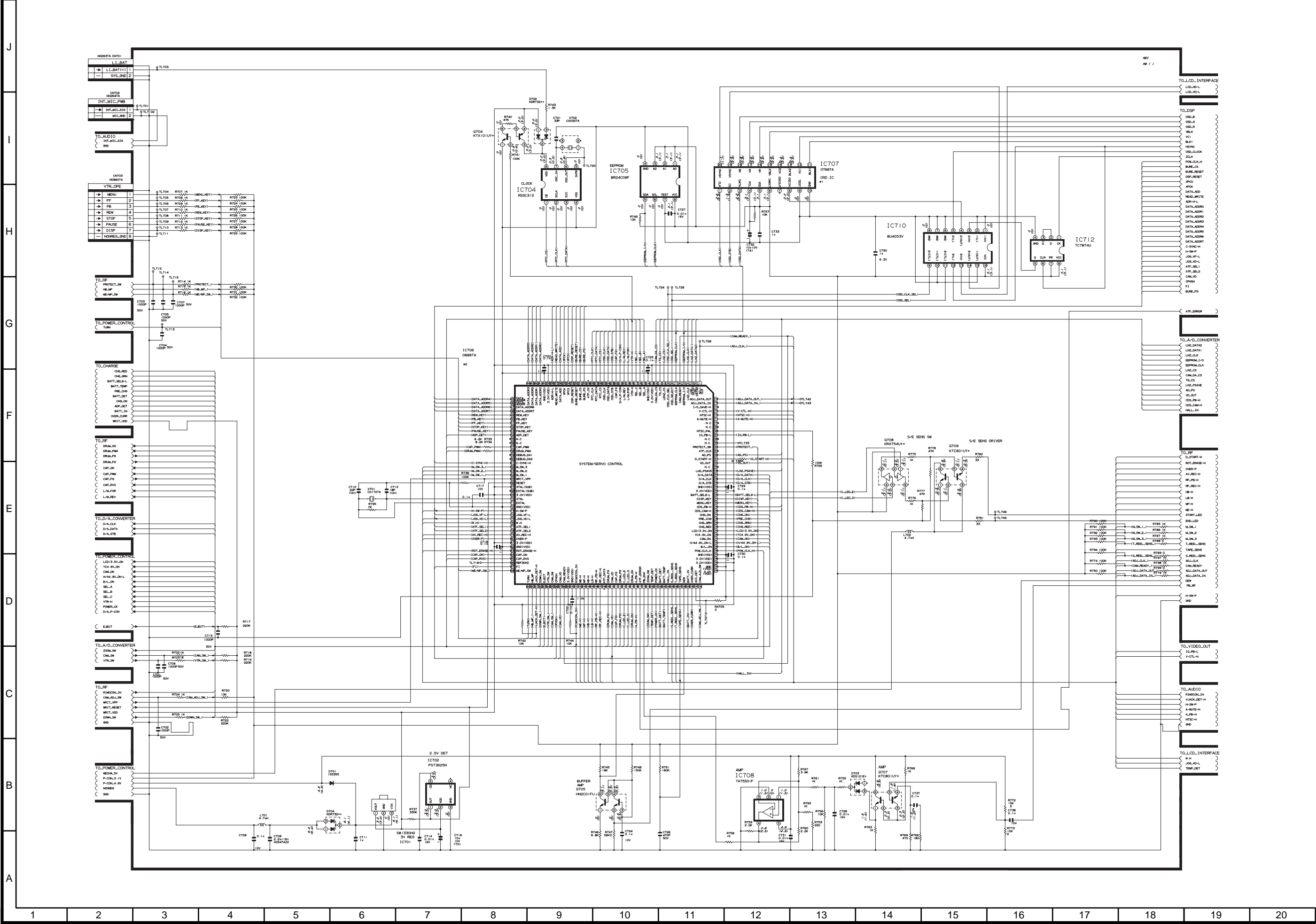




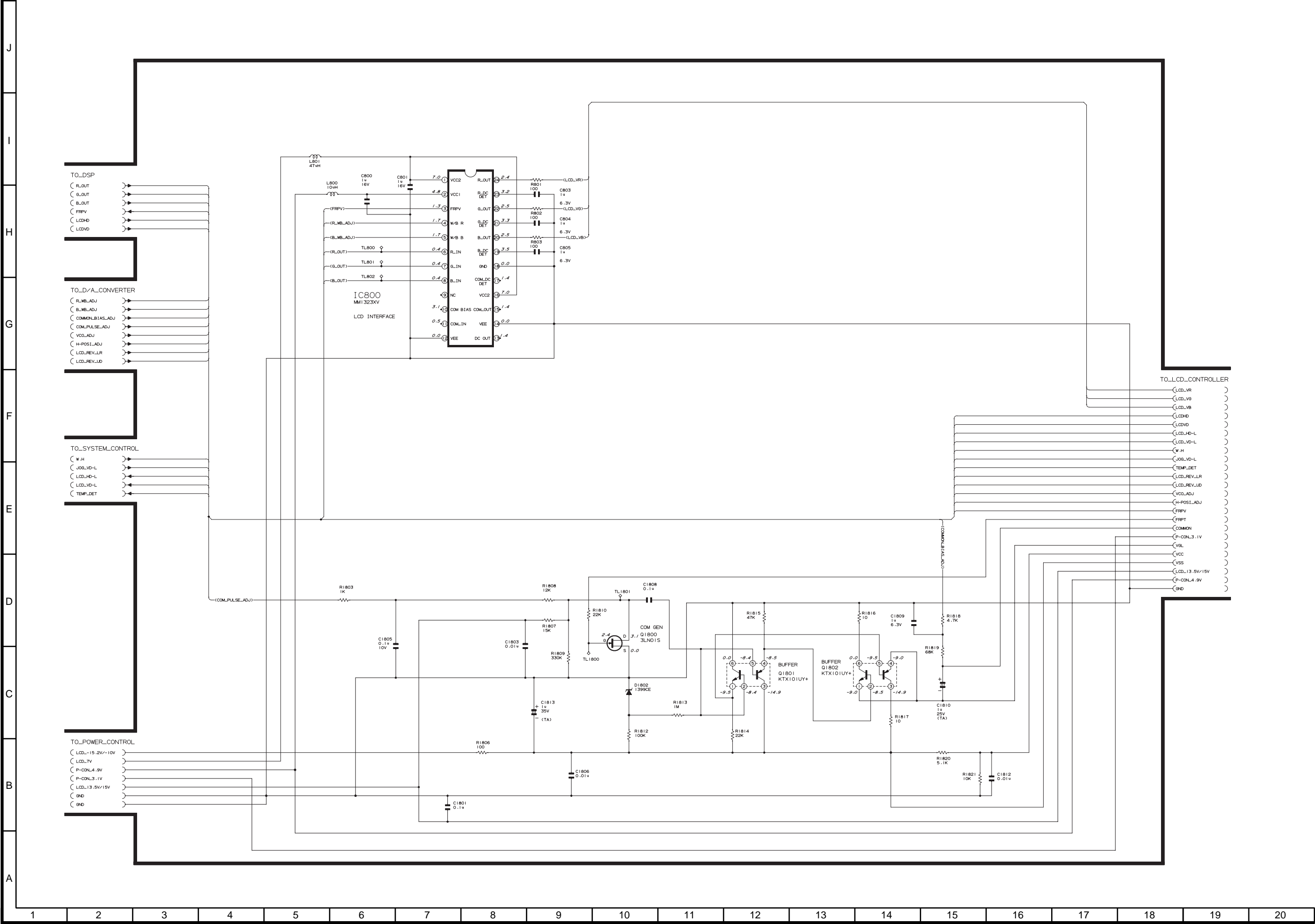
8-6. SYSTEM CONTROL SCHEMATIC DIAGRAM(VL-A111U/AH131U)



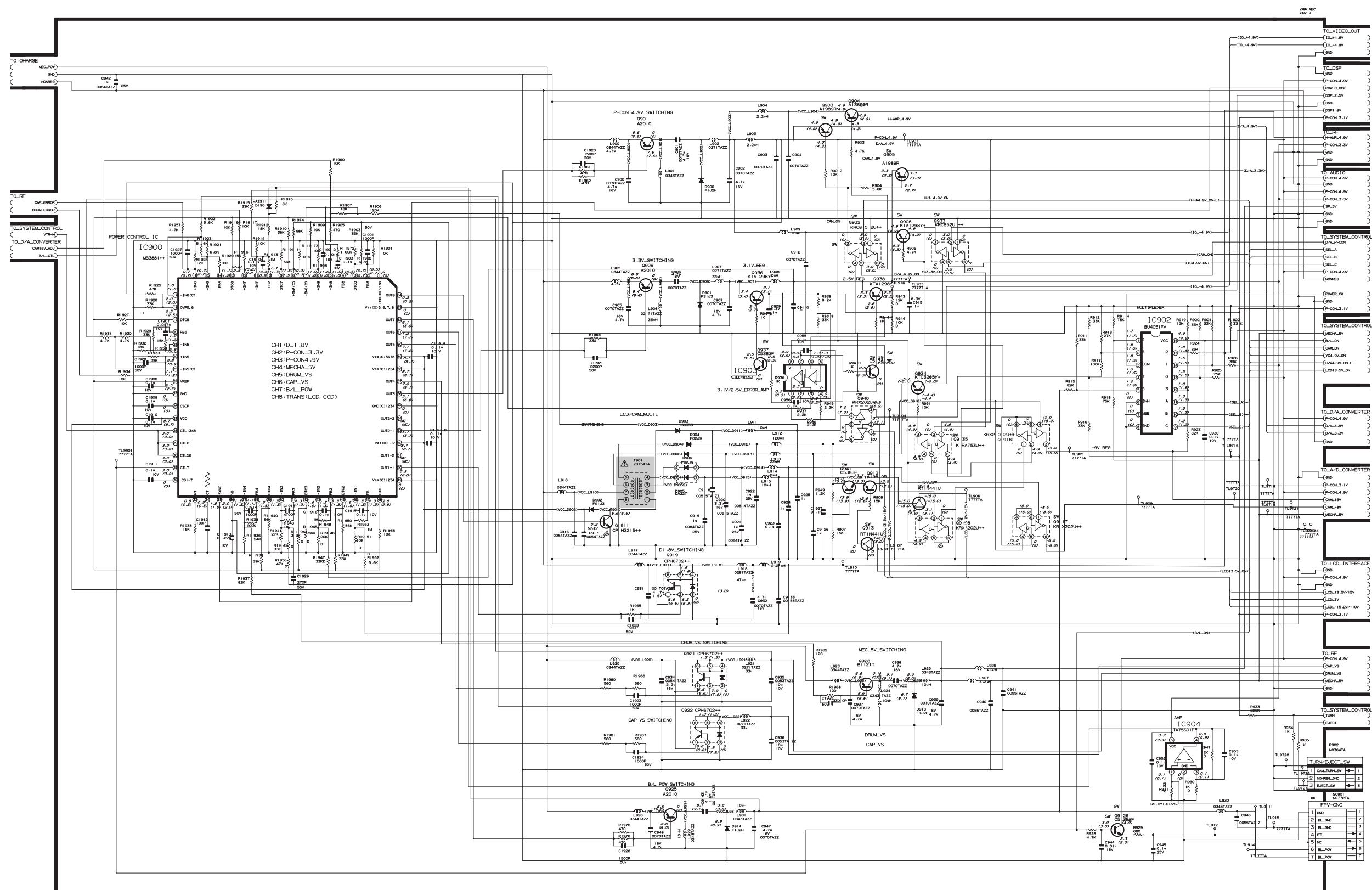
8-6. SYSTEM CONTROL SCHEMATIC DIAGRAM(VL-AH151U/AH161U)



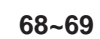
8-7. LCD INTERFACE SCHEMATIC DIAGRAM



⚠ AND SHADED COMPONENTS=SAFETY RELATED PARTS

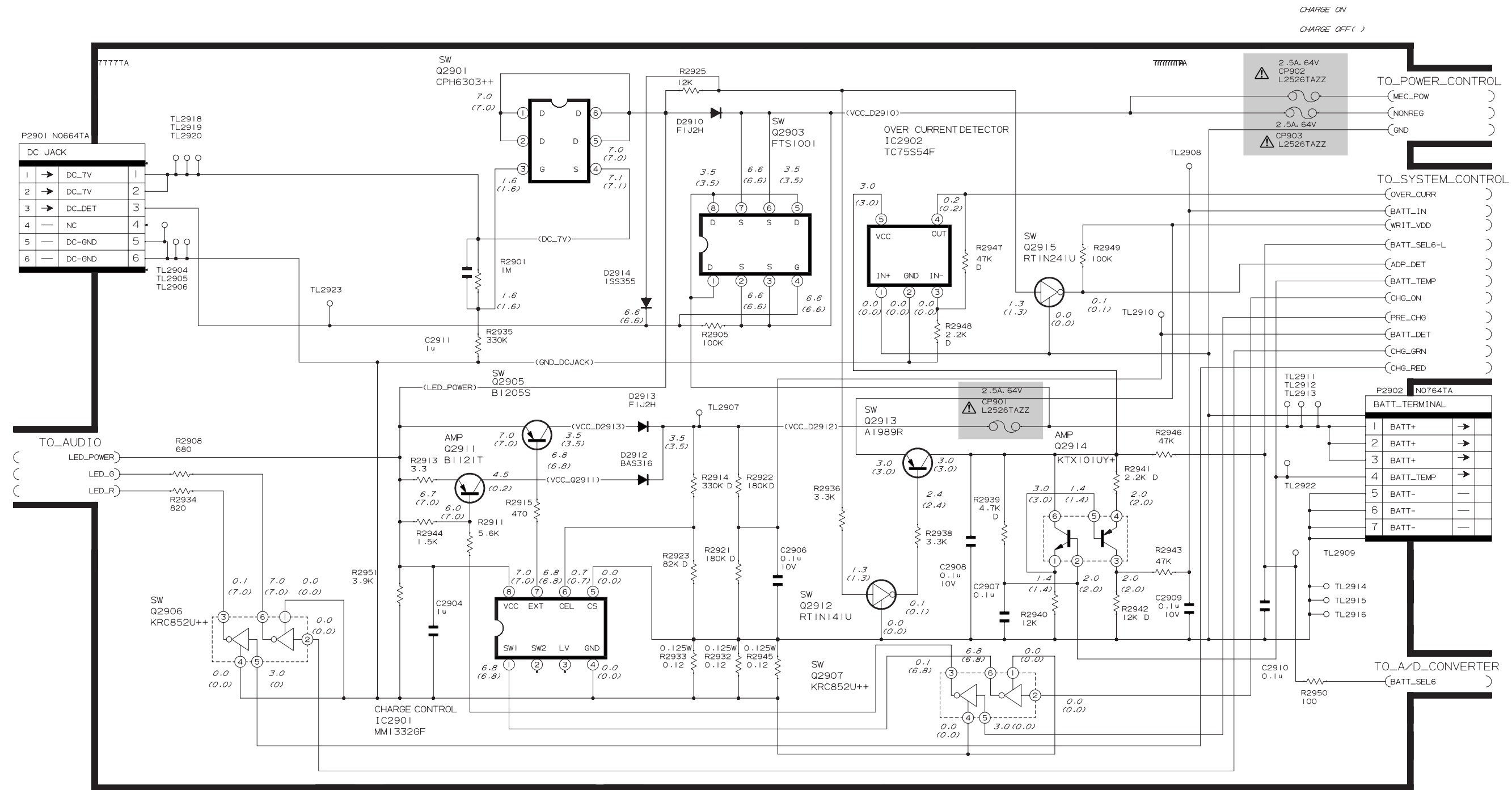




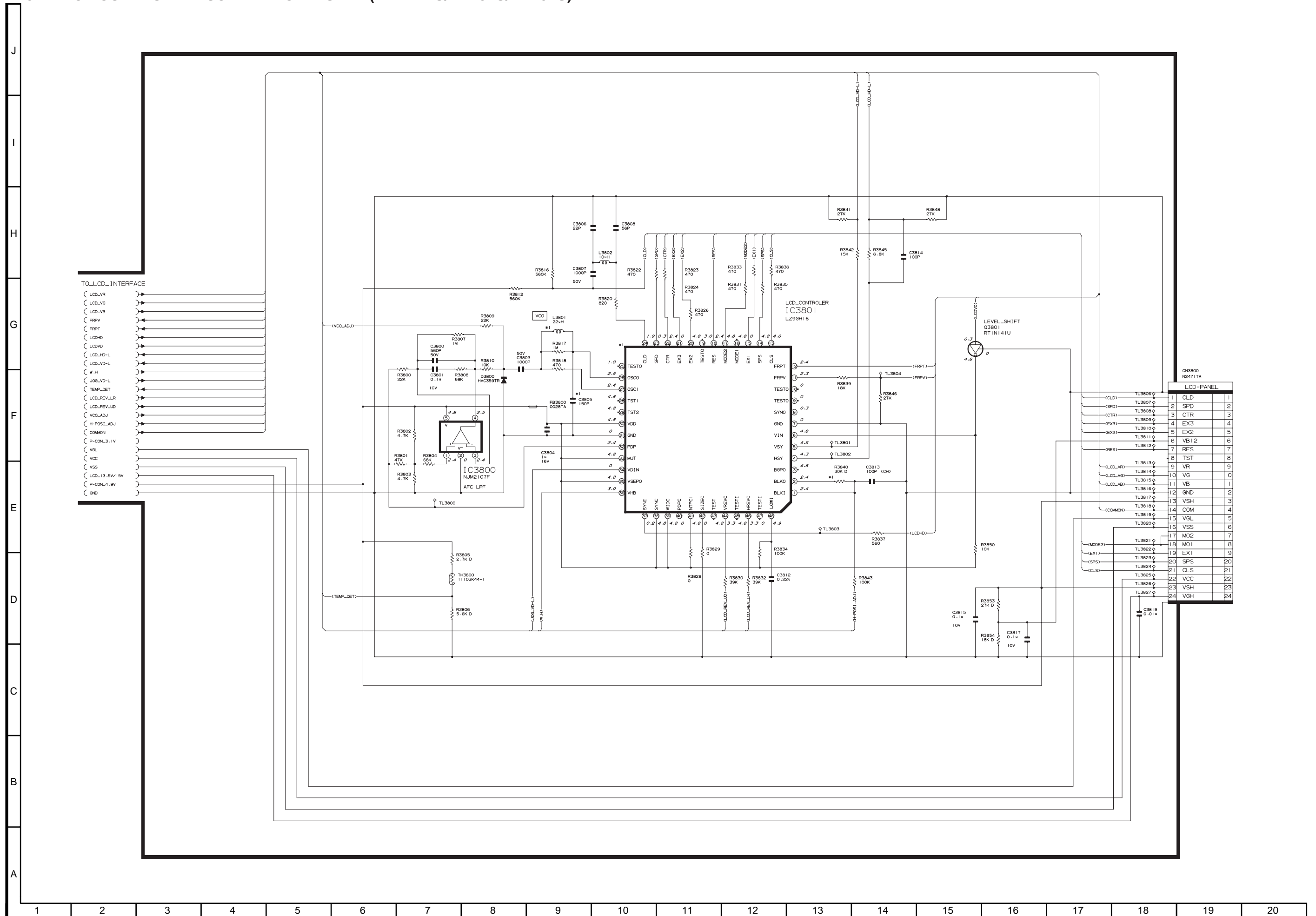


8-11. CHARGE SCHEMATIC DIAGRAM

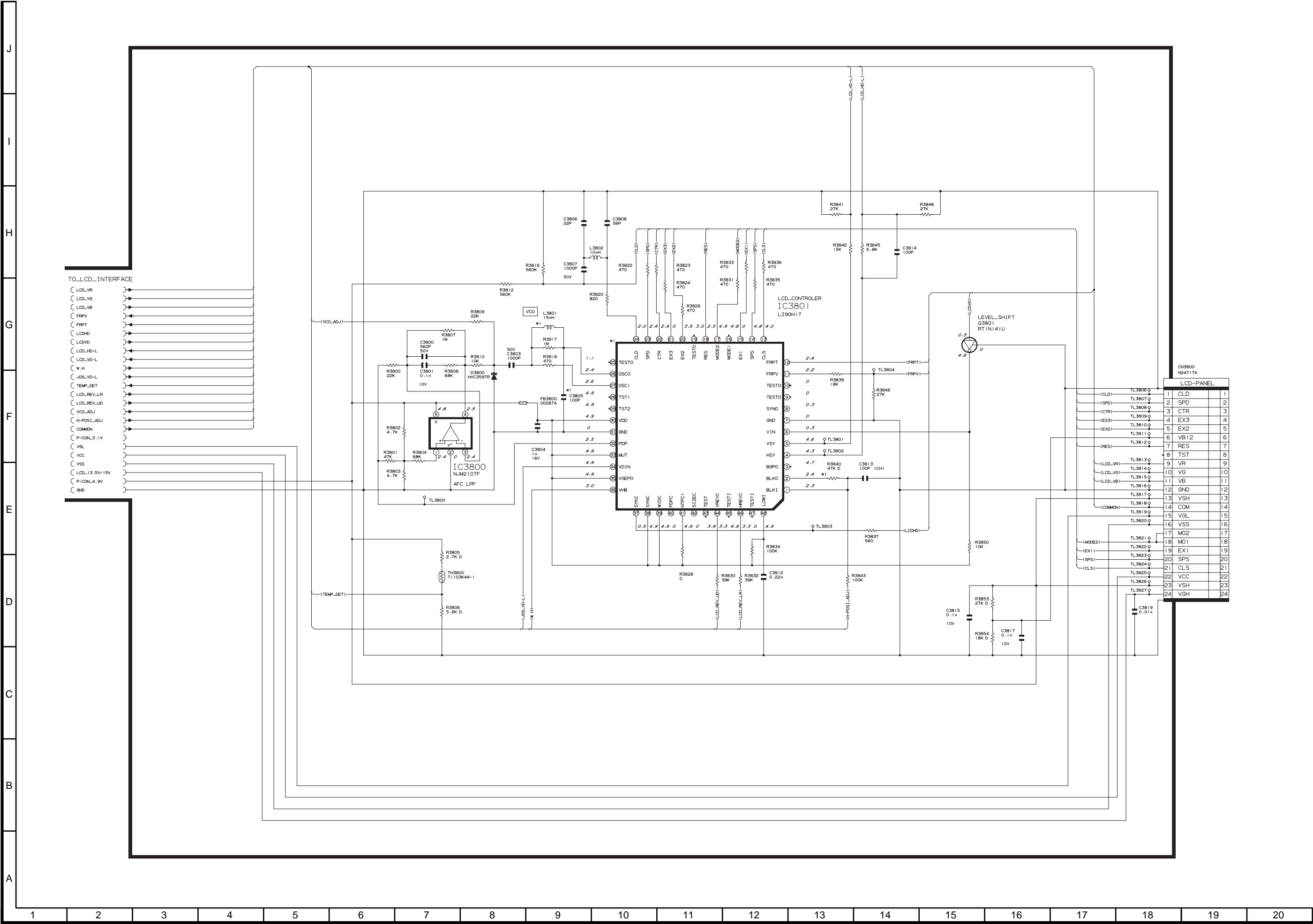
⚠ AND SHADED COMPONENTS=SAFETY RELATED PARTS



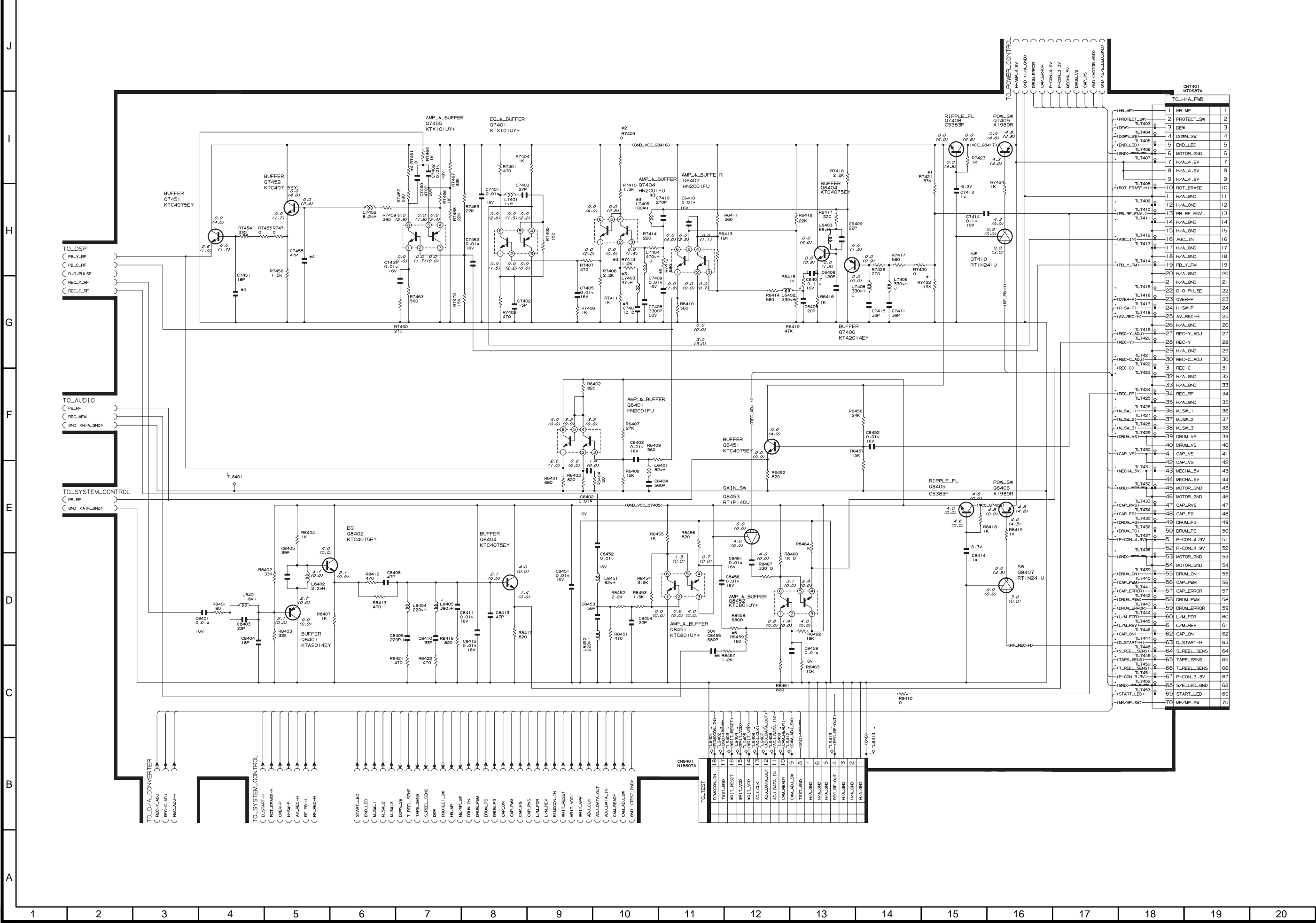
8-12. LCD CONTROLLER SCHEMATIC DIAGRAM(VL-A111U/AH131U/AH151U)



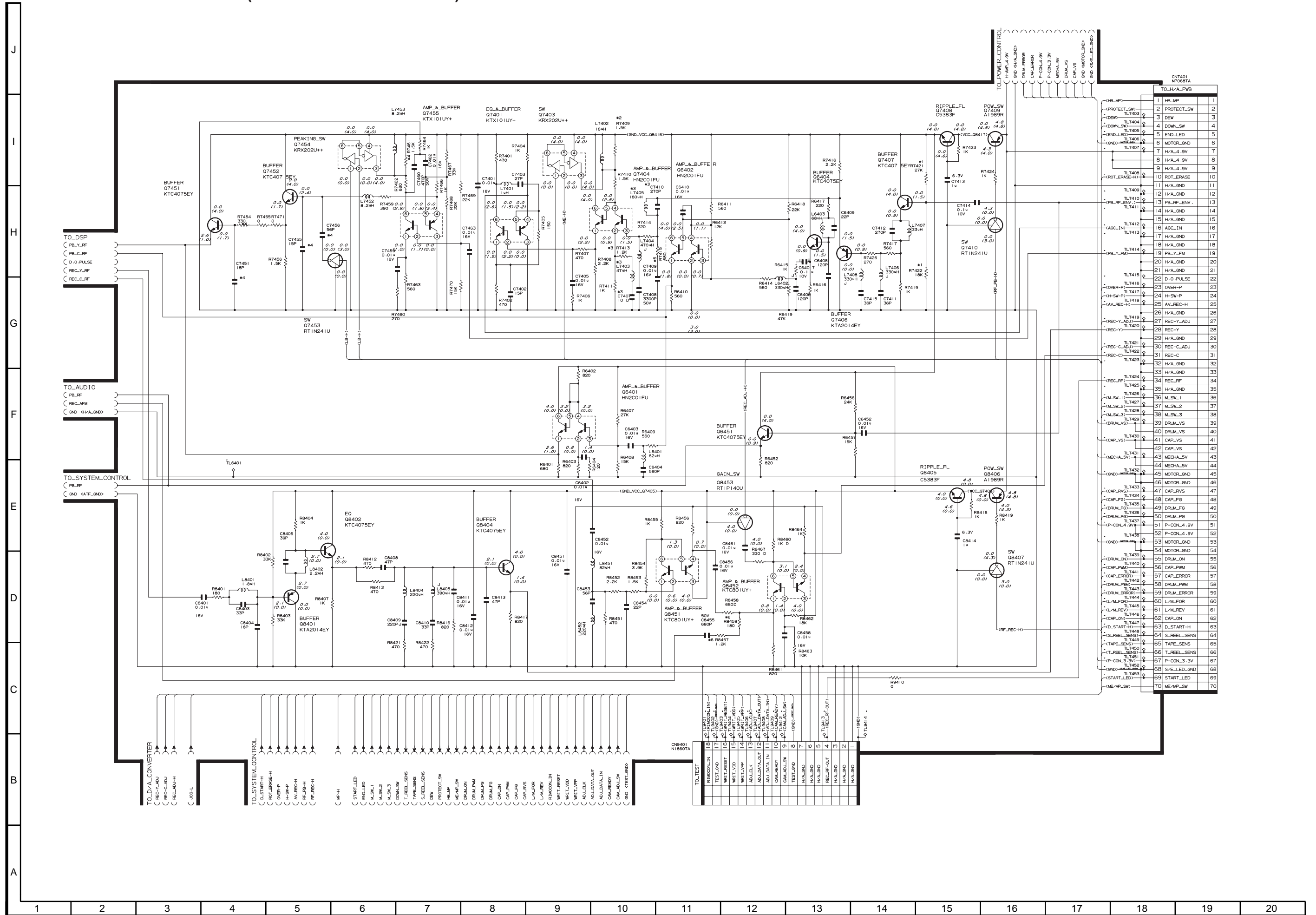
8-12. LCD CONTROLLER SCHEMATIC DIAGRAM(VL-AH161U)



8-13. RF SCHEMATIC DIAGRAM(VL-A111U)

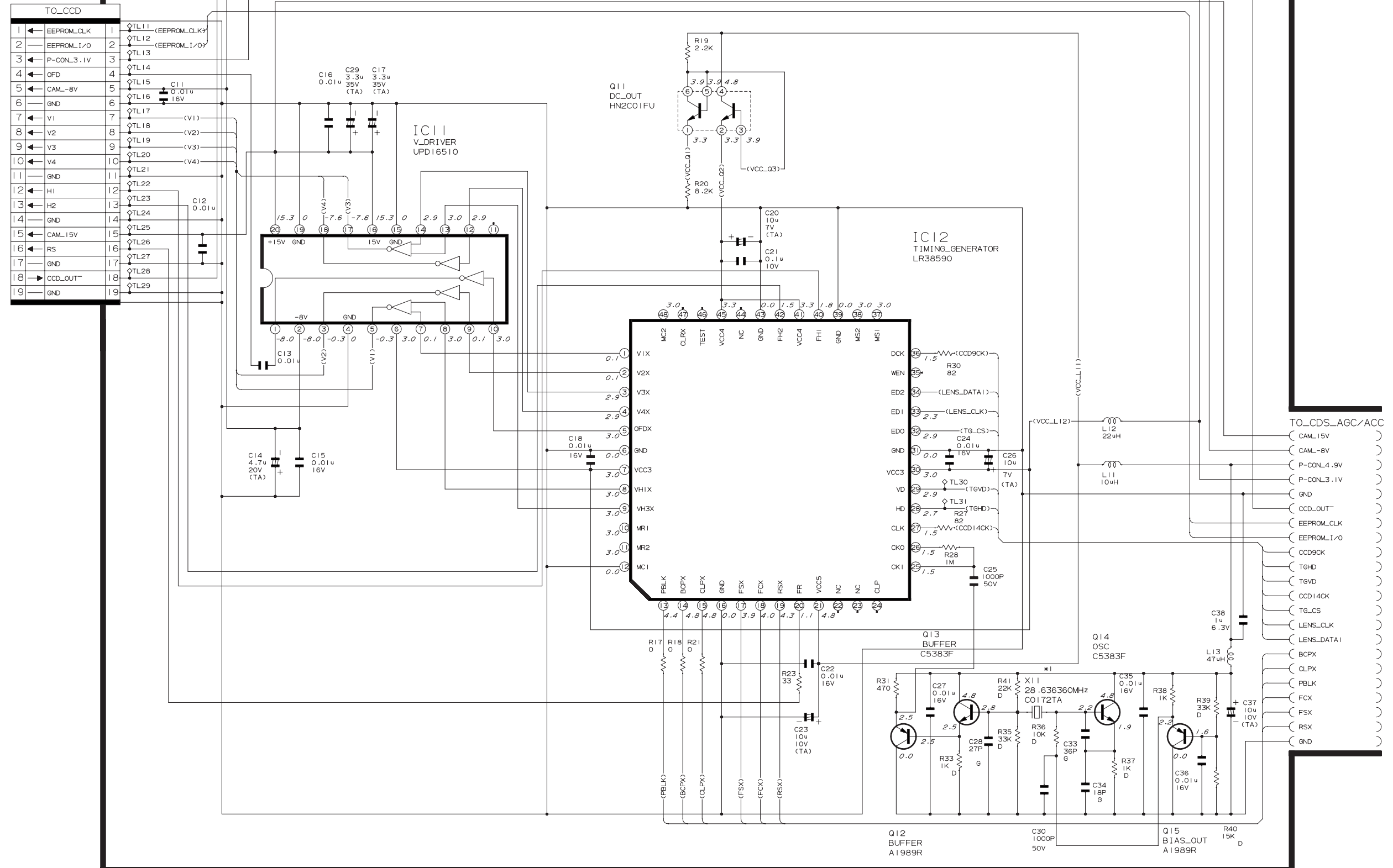


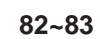
8-13. RF SCHEMATIC DIAGRAM(VL-AH131U/AH151U/AH161U)



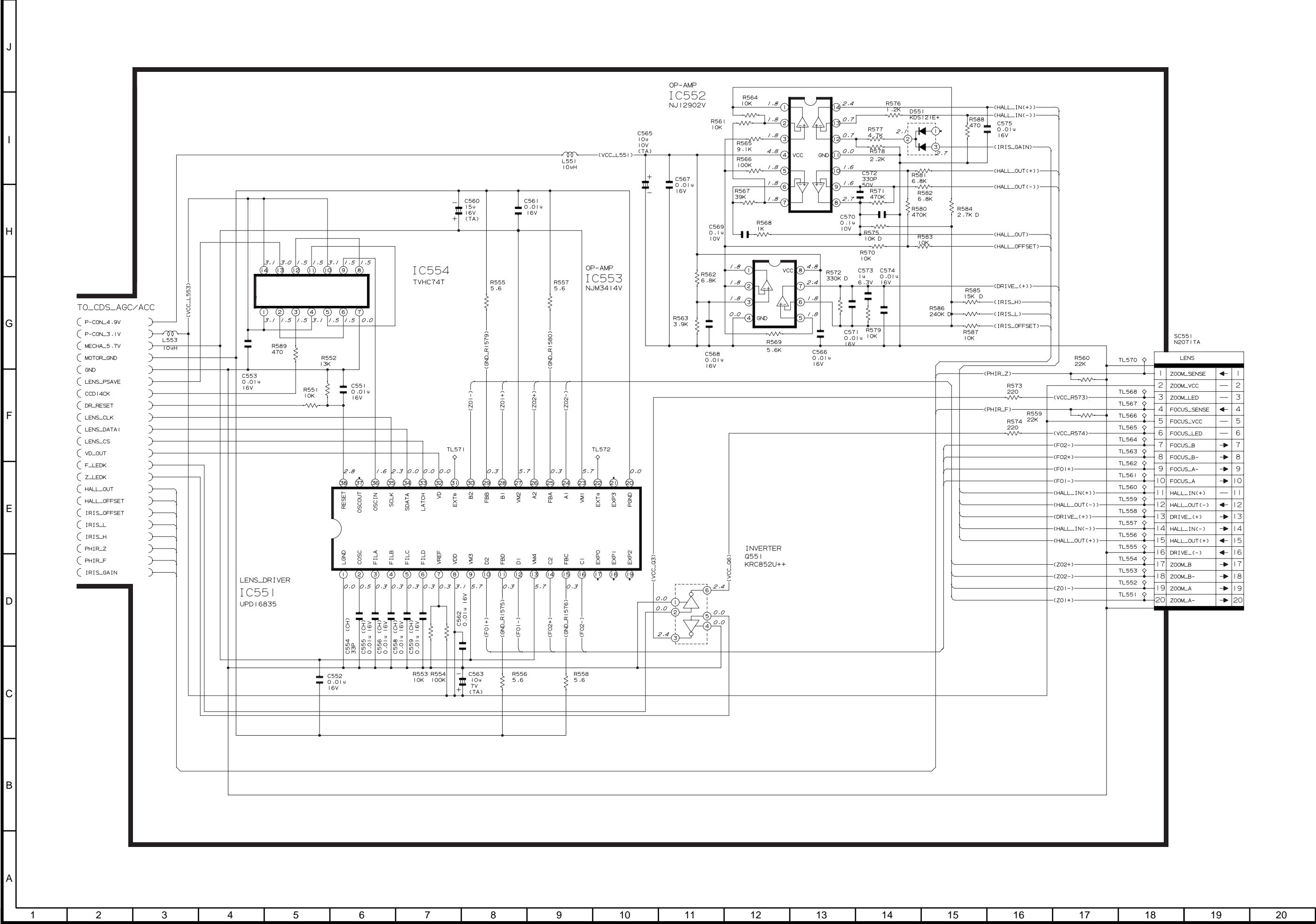
8-14. TG SCHEMATIC DIAGRAM

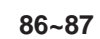
TO_CCD		
1	←	EEPROM_CLK
2	—	EEPROM_LV0
3	←	P-CON3_1V
4	←	CFD
5	←	CAM-BV
6	—	GND
7	←	V1
8	←	V2
9	←	V3
10	←	V4
11	—	GND
12	—	H1
13	—	H2
14	—	GND
15	←	CAM1.5V
16	—	RS
17	—	GND
18	→	CCD_OUT-
19	—	GND



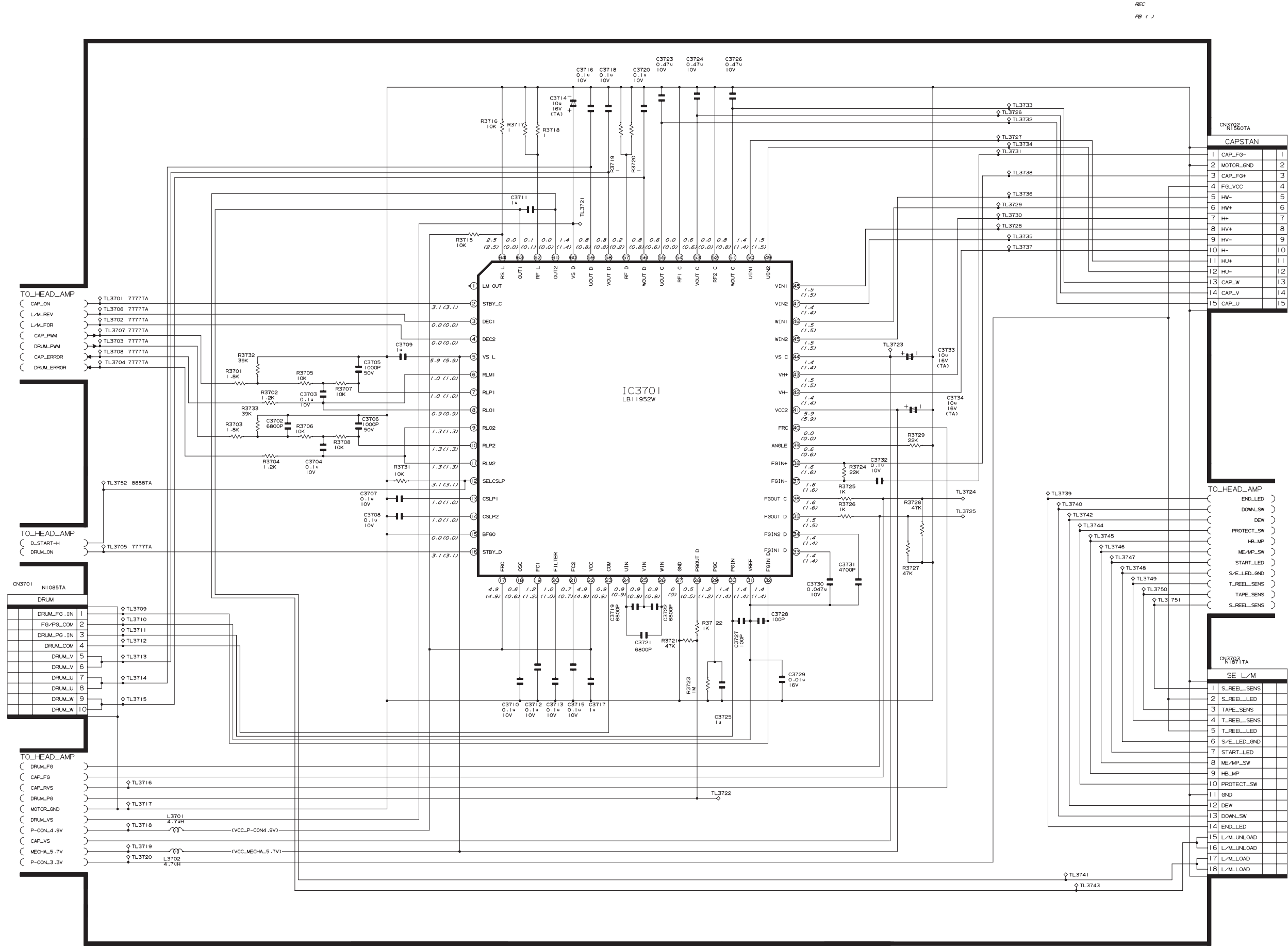


8-16. LENS DRIVER SCHEMATIC DIAGRAM

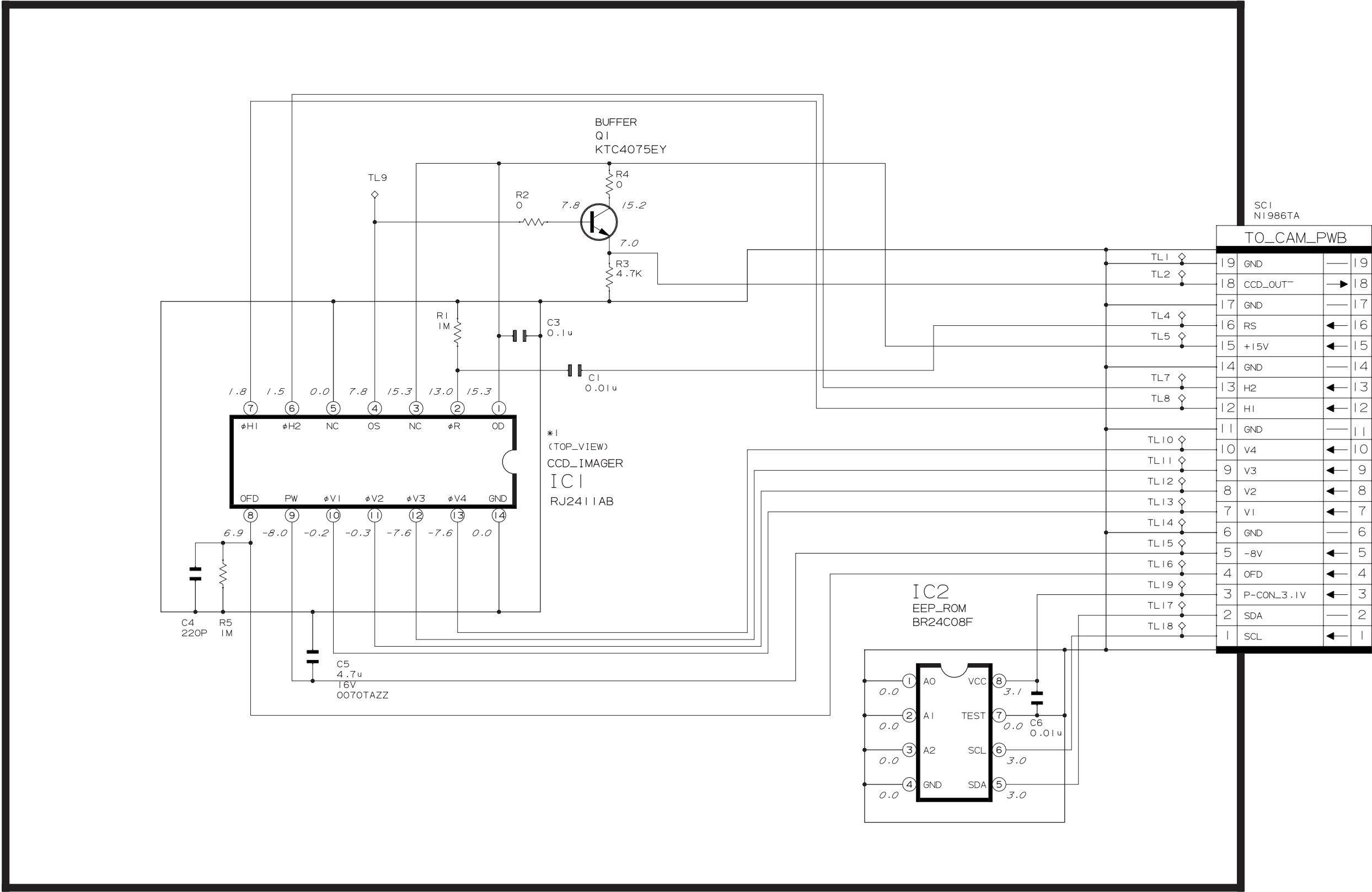




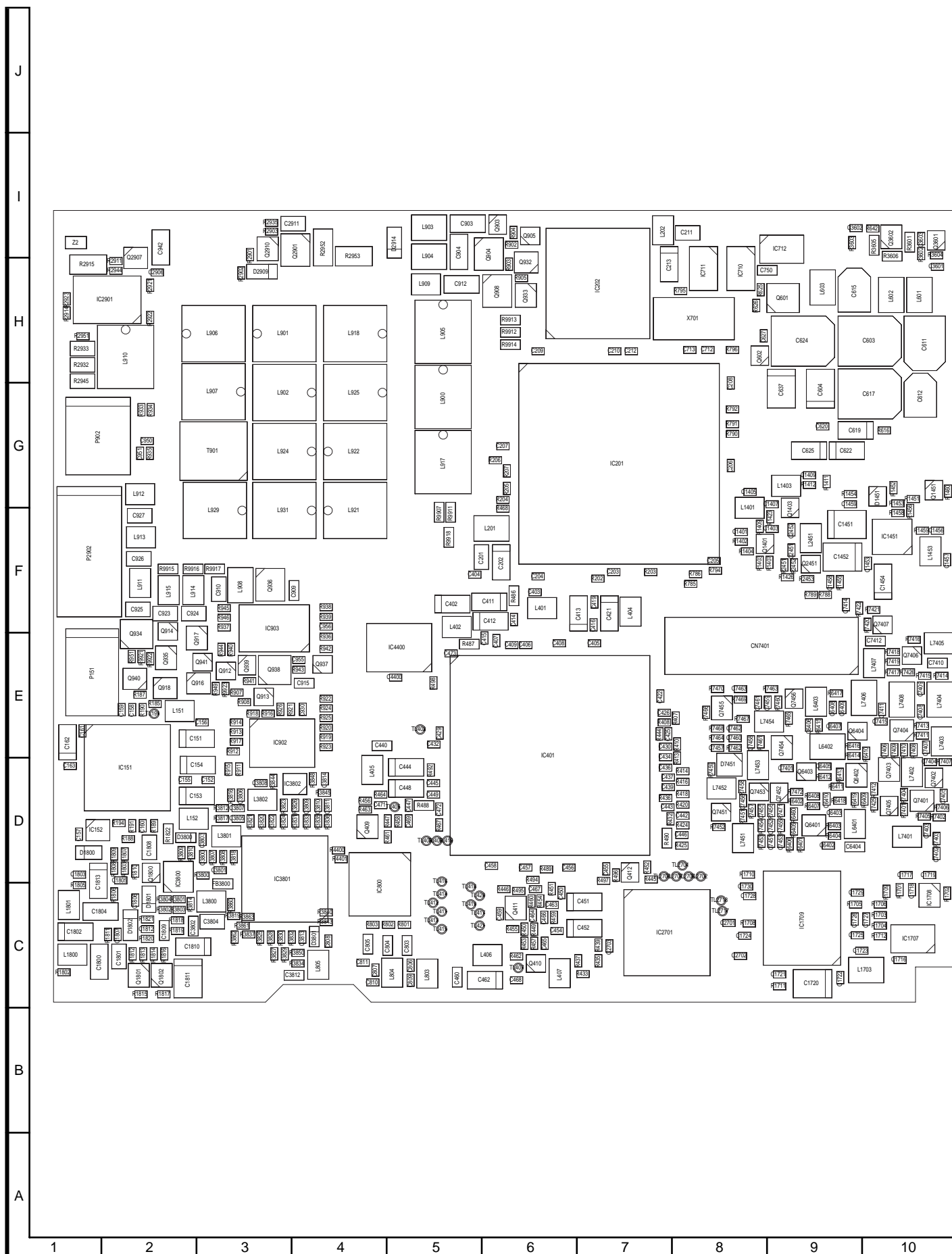
8-18. MOTOR DRIVER SCHEMATIC DIAGRAM



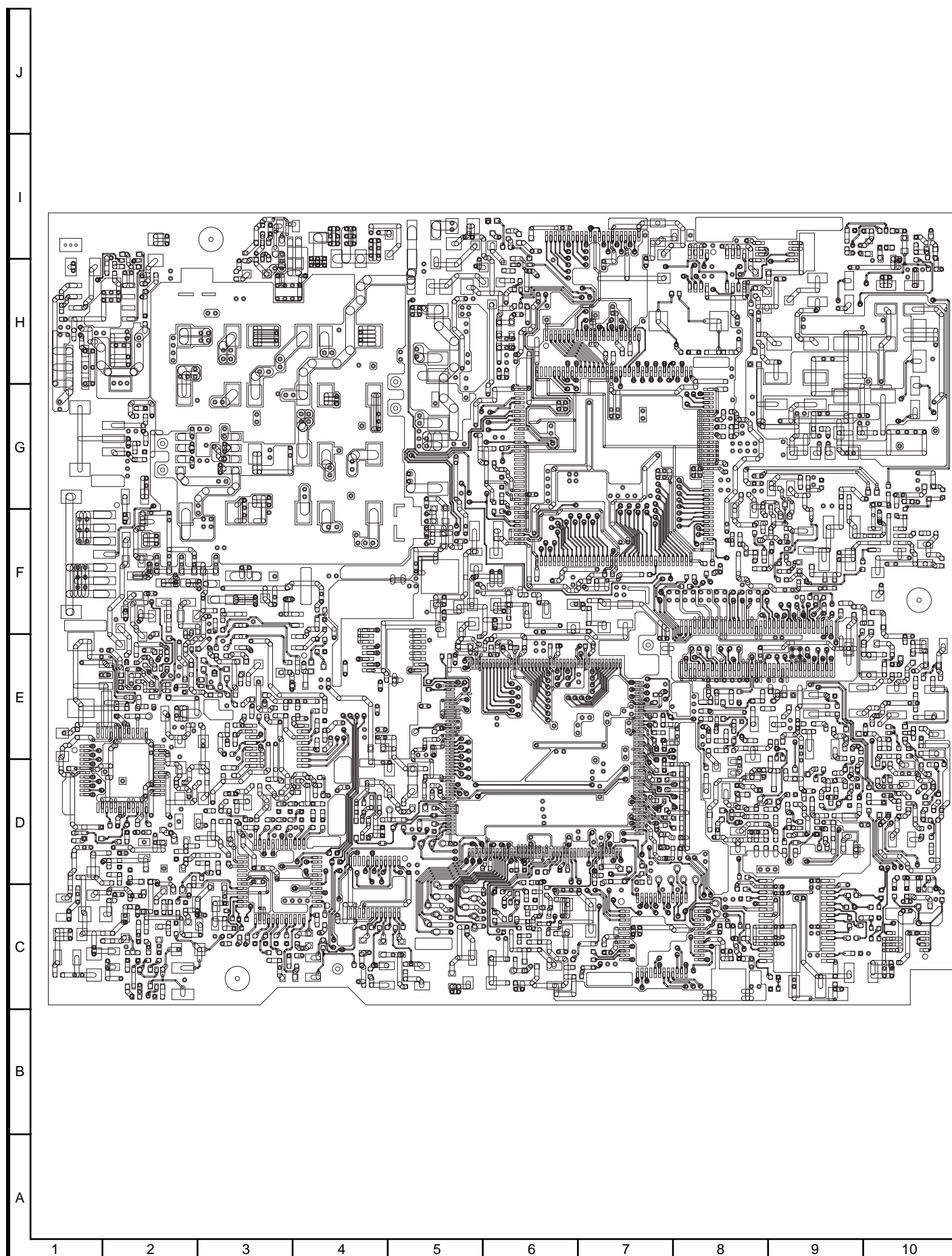
8-19. CCD SCHEMATIC DIAGRAM



9. PRINTED WIRING BOARD ASSEMBLIES VCR PWB Component Side SIDE A

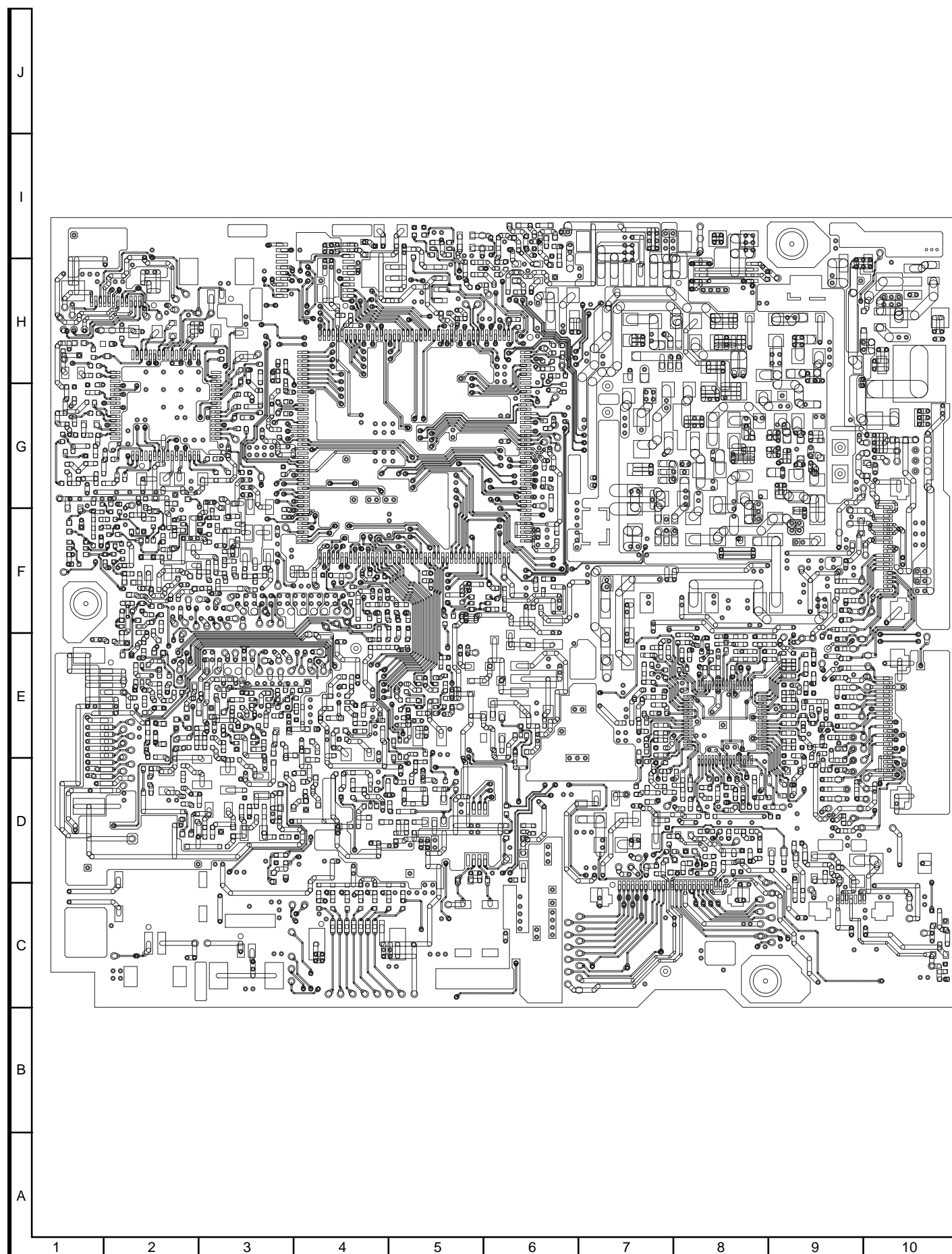


VCR PWB Wiring Side SIDE A



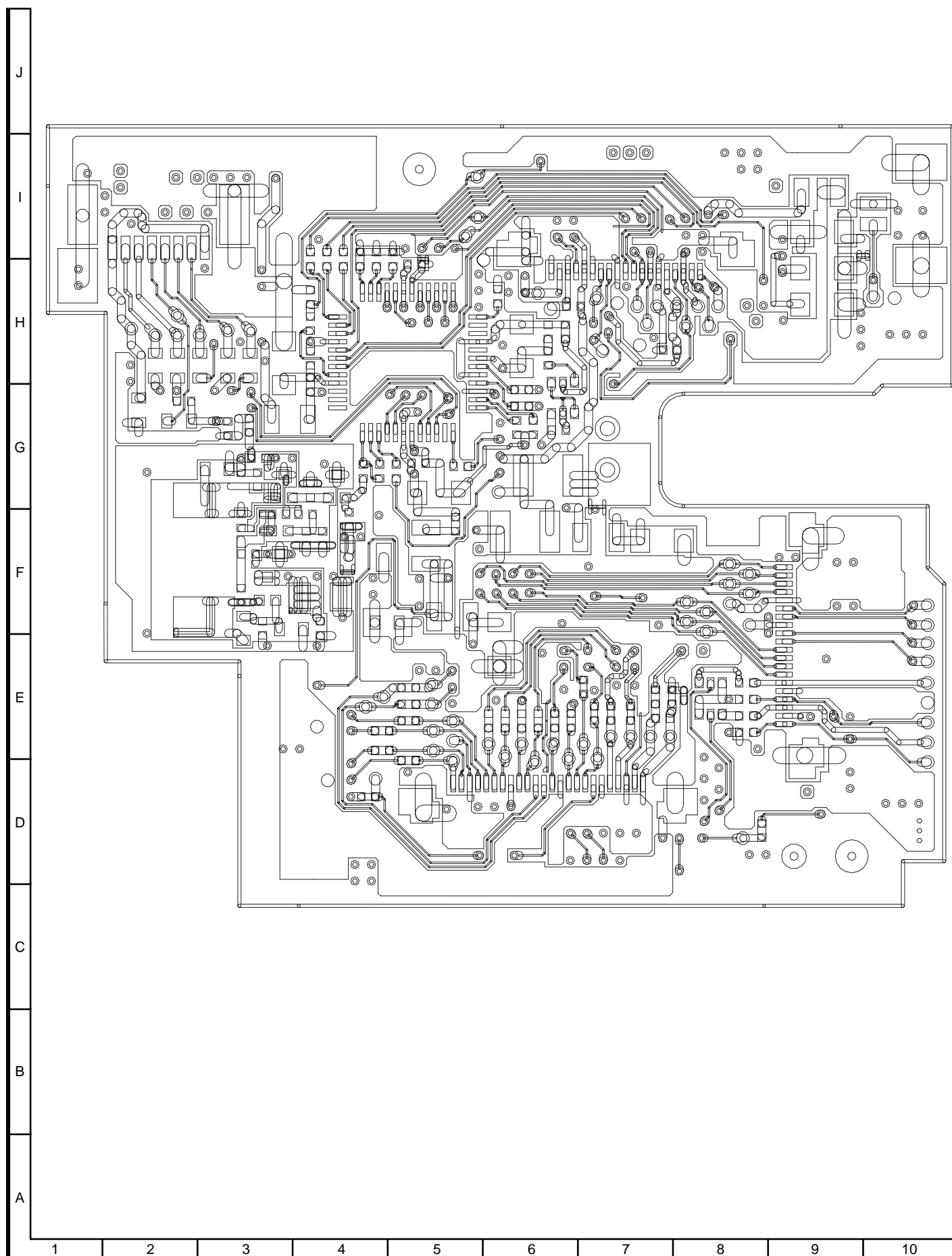


VCR PWB Wiring Side SIDE B



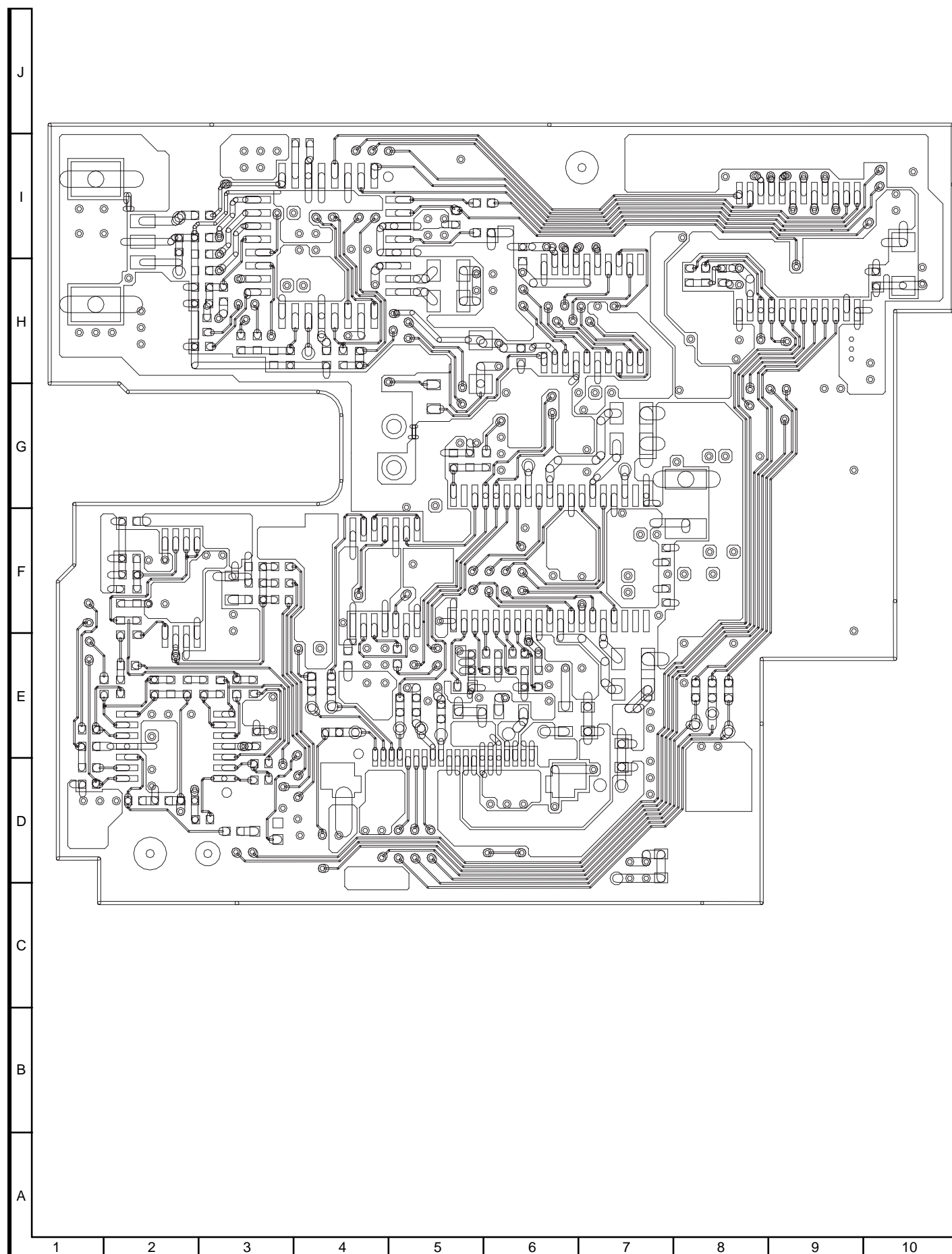


CAMERA PWB Wiring Side SIDE A

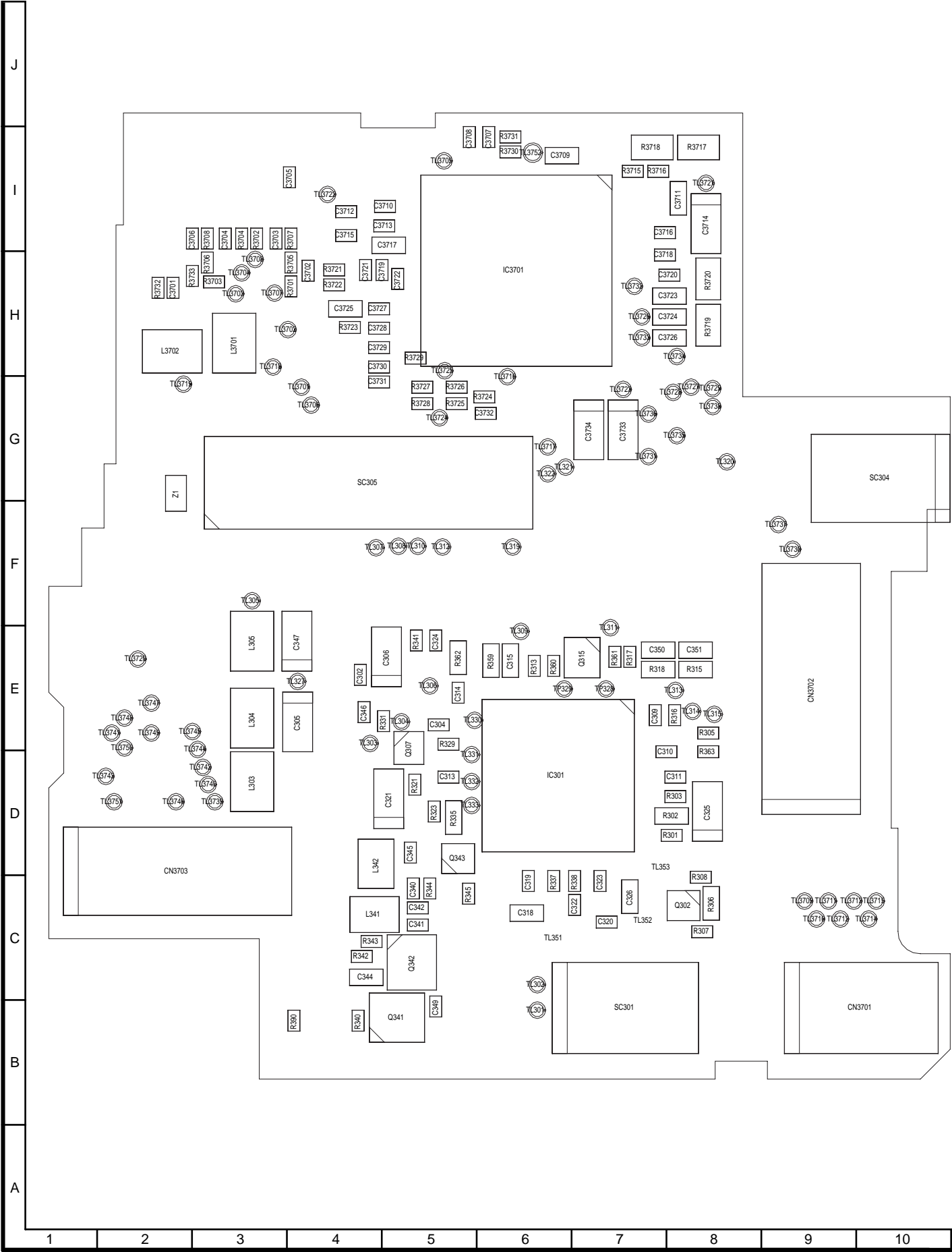




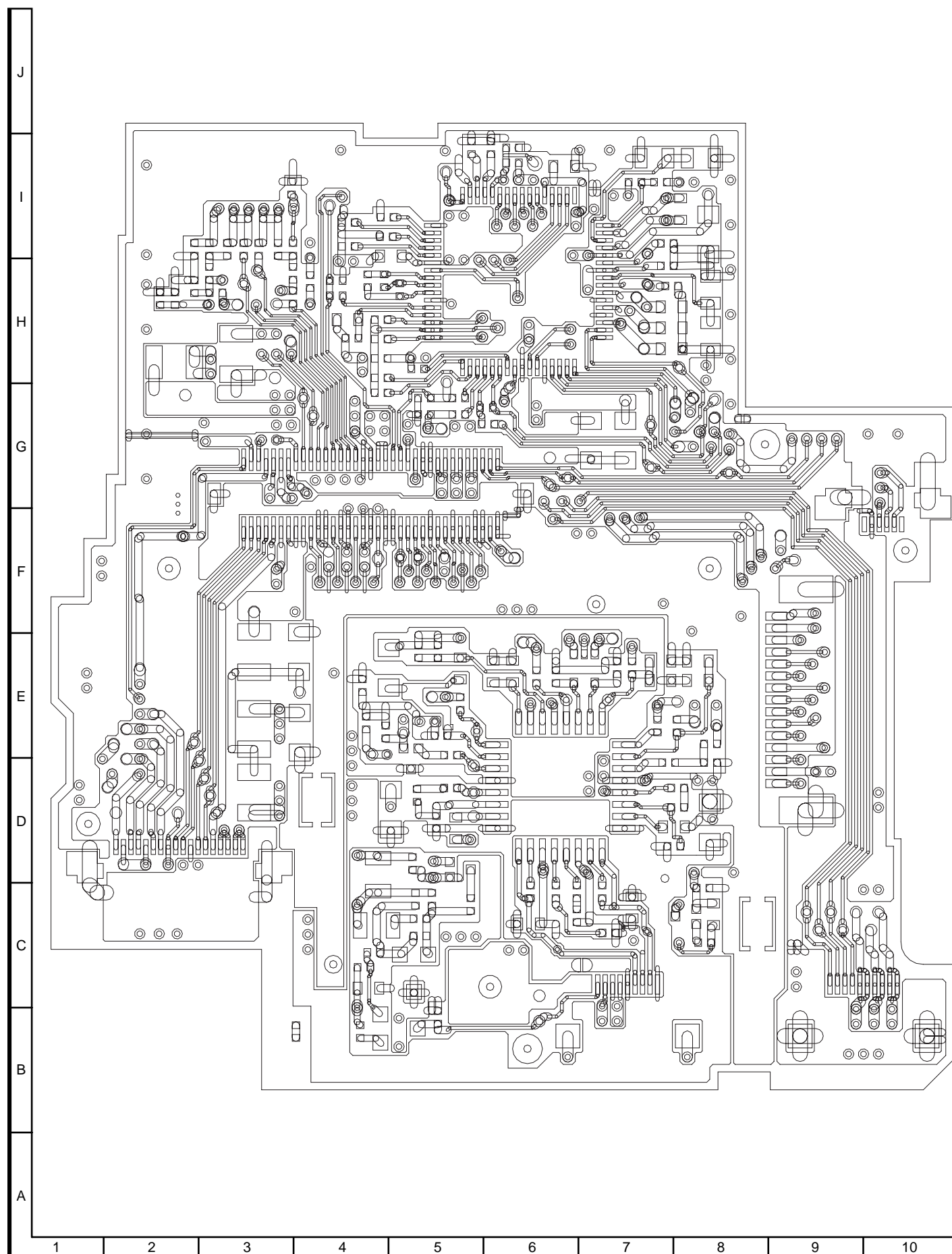
CAMERA PWB Wiring Side SIDE B



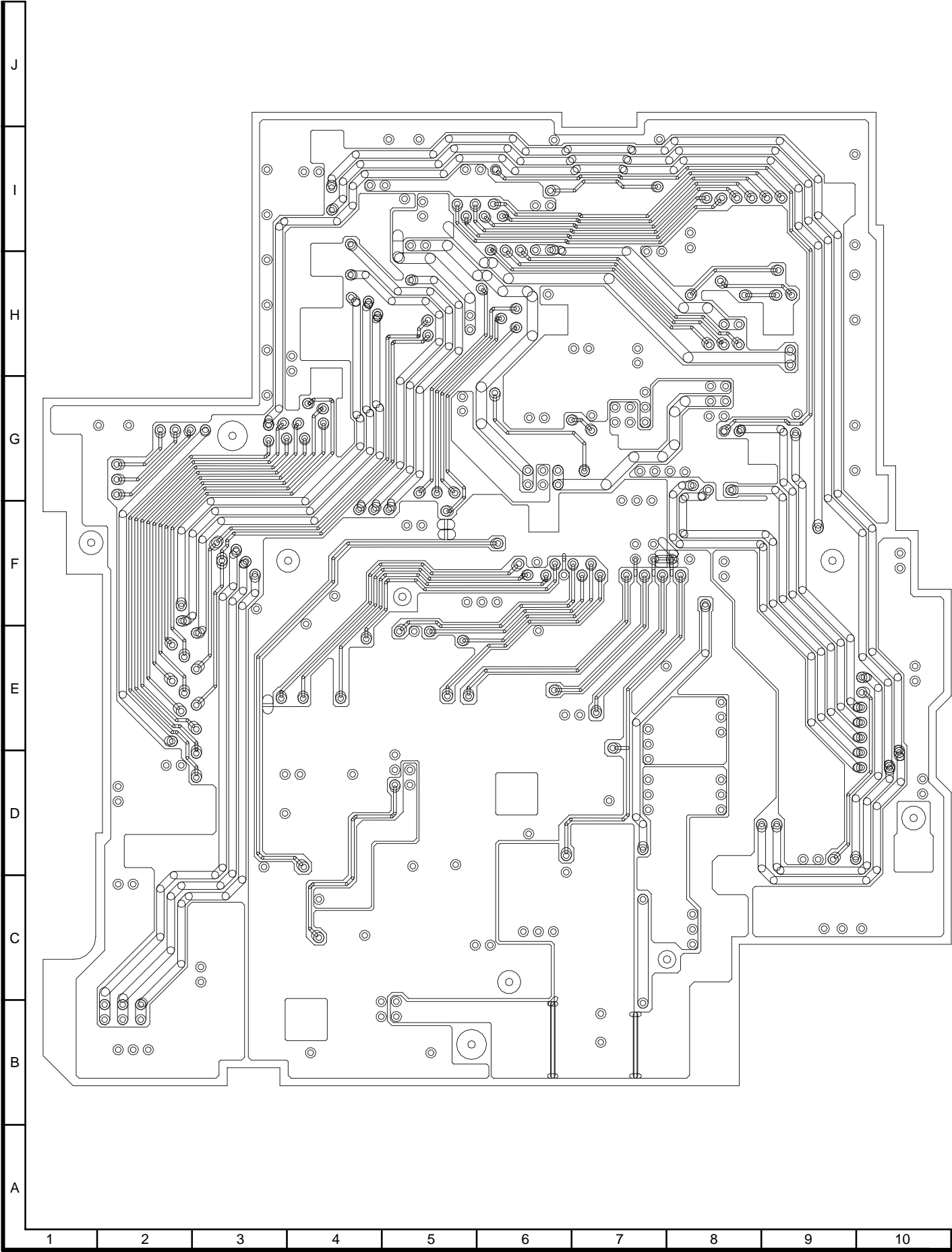
HEAD AMP PWB Component Side SIDE A



HEAD AMP PWB Wiring Side SIDE A



HEAD AMP PWB Wiring Side SIDE B



10. REPLACEMENT PARTS LIST/ EXPLODED VIEWS

ELECTRICAL PARTS LIST

Parts marked with "△" are important for maintaining the safety of the set.
Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

Les pièces marquées "△" sont importantes pour maintenir la sécurité de l'appareil. Ne remplacer ces pièces que par des pièces dont le numéro est spécifié pour maintenir la sécurité et protéger le bon fonctionnement de l'appareil.

" HOW TO ORDER REPLACEMENT PARTS "

in USA: Contact your nearest SHARP Parts Distributor. For location of SHARP Parts Distributor, Call Toll-free 1-IBE800-SHARP

in CANADA: Contact SHARP Electronics of Canada Limited. Phone (416) 890-2100.

★MARK : SPARE PARTS-DELIVERY SECTION:ALL JAPAN

To have your order filled promptly and correctly, please furnish the following information.

- | | |
|-----------------|----------------|
| 1. MODEL NUMBER | 2. REF. NO. |
| 3. PART NO. | 4. DESCRIPTION |
| 5. PRICE CODE | |

△ MARK: SAFETY RELATED PARTS
△ PIECES: RELATIVES A LA SECURITE

PWB ASSEMBLY IS NOT REPLACEMENT ITEM
L'ASSEMBLAGE P.C.I. EST UN ARTICLE NON REMPLACABLE

Ref. No.	Part No.	★	Description	Code
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PRINTED WIRING BOARD ASSEMBLIES (NOT REPLACEMENT ITEM)

DUNTK2949QA20	VCR Unit(VL-A111U)	—
DUNTK2949QA21	VCR Unit(VL-AH131U)	—
DUNTK2949QA22	VCR Unit(VL-AH151U)	—
DUNTK2949QA23	VCR Unit(VL-AH161U)	—
DUNTK2934QA04	CAMERA Unit(VL-A111U)	—
DUNTK2934QA07	CAMERA Unit (VL-AH131U/AH151U/AH161U)	—
DUNTK2936QA03	HEAD AMP Unit	—
DUNTK2800PM04	CCD Unit	—

TUNER AND ASSEMBLY UNITS

RUNTKA010WJZZ	VCR Operation SW Unit	—
RUNTK0352TAZZ	AV Jack Unit	—
RUNTK0354TAZZ	Lithium Battery Unit	—
RUNTK0356TAZZ	6-cell Detection Unit	—

Ref. No.	Part No.	★	Description	Code
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DUNTK2949QA20(VL-A111U)
DUNTK2949QA21(VL-AH131U)
DUNTK2949QA22(VL-AH151U)
DUNTK2949QA23(VL-AH161U)
VCR UNIT

INTEGRATED CIRCUITS

IC151	VHiCXD2310A-1	CXD2310A, A/D Converter	AV
IC201	RH-iX0738TAZZ	IX0738TA, Electric Zoom	AV
		(AH151U/AH161U)	
IC202	RH-iX0770TAZZ	IX0770TA, Field Memory	AW
		(AH151U/AH161U)	
IC401	RH-iX0788TAZZ	IX0788TA, Automatic Track	BB
		Finding	
IC601	VHiLA7458W/-1	LA7458W, Sig Process	AT
IC701	VHiS81330HG-1	S81330HG, 3V REG	AF
IC702	VHiPST3625N-1Y	PST3625N, 2.5V DET	AE
IC704	VHiRS5C313/-1	RS5C313, Clock	AL
IC705	VHiBR24C08F-1	BR24C08F, E ² PROM	AF
IC706	RH-iX0836TAZZ	IX0836TA, System/Servo	BB
		Control(A111U/AH131U)	
IC706	RH-iX0888TAZZQ	IX0888TA, System/Servo	BC
		Control(AH151U/AH161U)	
IC707	RH-iX0768TAZZ	IX0768TA, OSD IC	AP
IC708	VHiTA75S01F-1	TA75S01F, Amp	AD
IC710	VHiBU4053V/-1	BU4053V	AE
IC712	VHiTC7W74U/-1	TC7W74U	AD
IC800	VHiMM1323XV-1	MM1323XV, LCD Interface	AN
IC900	VHiMB3881+-1	MB3881+-, Power Control	AT
		IC	
IC902	VHiBU4051FV-1	BU4051FV, Multiplexer	AF
IC903	VHiNJM2904M-1	NJM2904M, 3.1V/2.5V	AE
		Error Amp	
IC904	VHiTA75S01F-1	TA75S01F, Amp	AD
IC1451	VHiTK15440M-1	TK15440M, Driver	AF
IC2701	VHiPT8214+-1Y	PT8214+-, D/A Converter	AM
IC2901	VHiMM1332GF-1	MM1332GF, Charge	AH
		Control	
IC2902	VHiTC75S54F-1	TC75S54F, Over Current	AF
		Detector	
IC3800	VHiNJM2107F-1	NJM2107F, AFC LPF	AE
IC3801	VHiLZ9GH16/-1	LZ9GH16, LCD Controller	AP
		(A111U/AH131U/AH151U)	
IC3801	VHiLZ9GH17/-1	LZ9GH17, LCD Controller	AP
		(AH161U)	

TRANSISTORS

Q403	VSKTA501UY+-1Y	KTA501UY+	AC
Q406	VS2SA1989R/-1	2SA1989R	AB
Q407	VSKTA2014EY-1Y	KTA2014EY	AB
Q409	VSKTX101UY+-1Y	KTX101UY+	AC
Q410	VS2SA1989R/-1	2SA1989R	AB
Q601	VS2SA1362GR-1	2SA1362GR	AC
Q602	VSRT1N441U/-1	RT1N441U	AB
Q603	VS2SC5383F/-1	2SC5383F	AB
Q704	VSKTX101UY+-1Y	KTX101UY+	AC
Q705	VSHN2C01FU/-1	HN2C01FU	AC
Q707	VSKTC801UY+-1Y	KTC801UY+	AC
Q708	VSKRA754U+-1Y	KRA754U++	AC
Q709	VSKTC801UY+-1Y	KTC801UY+	AC
Q901	VS2SA2010/-1	2SA2010	AD
Q903	VS2SA1989R/-1	2SA1989R	AB
Q904	VS2SA1362GR-1	2SA1362GR	AC
Q905	VS2SA1989R/-1	2SA1989R	AB
Q906	VS2SA2010/-1	2SA2010	AD
Q908	VSKTA1298Y+-1Y	KTA1298Y+	AC
Q911	VSCPH3215+-1	CPH3215++	AD
Q912	VS2SA1989R/-1	2SA1989R	AB
Q913	VSRT1N441U/-1	RT1N441U	AB
Q914	VSRT1N441U/-1	RT1N441U	AB
Q916	VSKRX202U+-1Y	KRX202U++	AC
Q917	VSKRX202U+-1Y	KRX202U++	AC
Q918	VSKRX202U+-1Y	KRX202U++	AC
Q919	VSCPH6702+-1	CPH6702++	AD

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
Q921	VSCPH6702++-1		CPH6702++	AD	DIODES				
Q922	VSCPH6702++-1		CPH6702++	AD	D601	VHDM132K/-1Y		MA132K	AA
Q925	VS2SA2010//-1		2SA2010	AD	D701	VHD1SS355//-1		1SS355	AB
Q926	VS2SC5383F/-1		2SC5383F	AB	D702	VHDKDR732++-1Y		KDR732++	AC
Q928	VS2SB1121T/-1		2SB1121T	AC	D703	VHDKDS121E+-1Y		KDS121E+	AB
Q932	VSKRC852U++-1Y		KRC852U++	AC	D704	VHDKDR732++-1Y		KDR732++	AC
Q933	VSKRC852U++-1Y		KRC852U++	AC	D900	VHDF1J2H///-1		F1J2H	AD
Q934	VSKTC3265Y+-1Y		KTC3265Y+	AC	D901	VHDFS1J3///-1		FS1J3	AD
Q935	VSKRA753U++-1Y		KRA753U++	AC	D902	VHDFS1J3///-1		FS1J3	AD
Q936	VSKTA1298Y+-1Y		KTA1298Y+	AC	D903	VHD1SS355//-1		1SS355	AB
Q937	VS2SC5383F/-1		2SC5383F	AB	D904	VHDF02J9///-1		F02J9	AD
Q938	VSKTA1298Y+-1Y		KTA1298Y+	AC	D905	VHDDA227///-1		DA227	AB
Q939	VS2SC5383F/-1		2SC5383F	AB	D906	VHDF02J9///-1		F02J9	AD
Q940	VSKRX202U++-1Y		KRX202U++	AC	D913	VHDF1J2H///-1		F1J2H	AD
Q941	VS2SC5383F/-1		2SC5383F	AB	D914	VHDF1J2H///-1		F1J2H	AD
Q1401	VSKTA2014EY-1Y		KTA2014EY	AB	D1802	RH-EX1399CEZZ		Zener Diode, EX1399CE	AB
Q1402	VSKTA2014EY-1Y		KTA2014EY	AB	D1901	VHDM2A2S111/-1		MA2S111	AC
Q1403	VSKTA2014EY-1Y		KTA2014EY	AB	D2910	VHDF1J2H///-1		F1J2H	AD
Q1404	VSKTA2014EY-1Y		KTA2014EY	AB	D2912	VHDBAS316//-1		BAS316	AB
Q1406	VSKTC4075EY-1Y		KTC4075EY	AB	D2913	VHDF1J2H///-1		F1J2H	AD
Q1451	VSRT1N141U/-1		RT1N141U	AB	D2914	VHD1SS355//-1		1SS355	AB
Q1800	VS3LN01S///-1		3LN01S	AC	D3800	VHDHVC359TR-1		HVC359TR	AD
Q1801	VSKTX101UY+-1Y		KTX101UY+	AC	PACKAGED CIRCUITS				
Q1802	VSKTX101UY+-1Y		KTX101UY+	AC	TH3800	VHHT1103K44-1		Thermistor	AD
Q2401	VSHN2C01FU/-1		HN2C01FU	AC	X701	RCRSC0170TAZZ		Crystal, CRSC0170TA	AG
Q2402	VSKTA501UY+-1Y		KTA501UY+	AC	X702	RCRSC0032TAZZ		Crystal, CRSC0032TA	AG
Q2403	VSKTC601UY+-1Y		KTC601UY+	AC	COILS AND TRANSFORMER				
Q2405	VSKTX101UY+-1Y		KTX101UY+	AC	L151	VPAWM220K2R7N		Peaking, 22μH	AC
Q2406	VSRT1N141U/-1		RT1N141U	AB	L152	VPAWM220K2R7N		Peaking, 22μH	AC
Q2407	VSKTA2014EY-1Y		KTA2014EY	AB	L201	VPCCM100KR22N		Peaking, 10μH	AB
Q2408	VS2SC5383F/-1		2SC5383F	AB				(AH151U/AH161U)	
Q2901	VSCPH6303++-1		CPH6303++	AE	L202	VPAWM100K1R5N		Peaking, 10μH	AC
Q2903	VSFTS1001//-1		FTS1001	AG				(AH151U/AH161U)	
Q2905	VS2SB1205S/-1		2SB1205S	AE	L401	VPAWM100K1R5N		Peaking, 10μH	AC
Q2906	VSKRC852U++-1Y		KRC852U++	AC	L402	VPAWM330K4R8NY		Peaking, 33μH	AB
Q2907	VSKRC852U++-1Y		KRC852U++	AC	L404	VPAWM330K4R8NY		Peaking, 33μH	AB
Q2911	VS2SB1121T/-1		2SB1121T	AC	L405	VPAWM330K4R8NY		Peaking, 33μH	AB
Q2912	VSRT1N141U/-1		RT1N141U	AB	L406	VPAWM330K4R8NY		Peaking, 33μH	AB
Q2913	VS2SA1989R/-1		2SA1989R	AB	L407	VPD9M6R8J1R8N		Peaking, 6.8μH	AC
Q2914	VSKTX101UY+-1Y		KTX101UY+	AC	L601	VPCQM101K4R3N		Peaking, 100μH	AB
Q2915	VSRT1N241U/-1		RT1N241U	AB	L602	VPCCM101K2R1N		Peaking, 100μH	AC
Q3601	VSRT1N441U/-1		RT1N441U	AB	L603	VPCQM220K1R0N		Peaking, 22μH	AB
Q3602	VSKRX202U++-1Y		KRX202U++	AC	L701	VPCCM4R7MR13N		Peaking, 4.7μH	AB
Q3801	VSRT1N141U/-1		RT1N141U	AB	L702	VPCCM4R7MR13N		Peaking, 4.7μH	AB
Q4401	VS2SA1989R/-1		2SA1989R	AB	L800	VPD9M100J1R7N		Peaking, 10μH	AC
Q6401	VSHN2C01FU/-1		HN2C01FU	AC	L801	VPD9M470J6R6N		Peaking, 47μH	AC
Q6402	VSHN2C01FU/-1		HN2C01FU	AC	L900	RCiLP0344TAZZ		Coil, 4.7μH	AD
Q6404	VSKTC4075EY-1Y		KTC4075EY	AB	L901	RCiLP0343TAZZ		Coil, CiLP0343TA	AD
Q6451	VSKTC4075EY-1Y		KTC4075EY	AB	L902	RCiLP0271TAZZ		Coil, CiLP0271TA	AE
Q7401	VSKTX101UY+-1Y		KTX101UY+	AC	L903	VPCCM2R2MR09N		Peaking, 2.2μH	AC
Q7403	VSKRX202U++-1Y		KRX202U++	AC	L904	VPCCM2R2MR09N		Peaking, 2.2μH	AC
			(AH131U/AH151U/AH161U)		L905	RCiLP0344TAZZ		Coil, 4.7μH	AD
Q7404	VSHN2C01FU/-1		HN2C01FU	AC	L906	RCiLP0271TAZZ		Coil, 33μH	AE
Q7406	VSKTA2014EY-1Y		KTA2014EY	AB	L907	RCiLP0271TAZZ		Coil, 33μH	AE
Q7407	VSKTC4075EY-1Y		KTC4075EY	AB	L908	VPCQM100KR41N		Peaking, 10μH	AC
			(AH131U/AH151U/AH161U)		L909	VPAWM100K1R5N		Peaking, 10μH	AC
Q7408	VS2SC5383F/-1		2SC5383F	AB	L910	RCiLP0344TAZZ		Coil, CiLP0344TA	AD
Q7409	VS2SA1989R/-1		2SA1989R	AB	L911	VPAWM100K1R5N		Peaking, 10μH	AC
Q7410	VSRT1N241U/-1		RT1N241U	AB	L912	VPD9M121J140N		Peaking, 120μH	AC
Q7451	VSKTC4075EY-1Y		KTC4075EY	AB	L913	VPAWM220K2R7N		Peaking, 22μH	AC
Q7452	VSKTC4075EY-1Y		KTC4075EY	AB	L914	VPAWM100K1R5N		Peaking, 10μH	AC
Q7453	VSRT1N241U/-1		RT1N241U	AB	L915	VPAWM100K1R5N		Peaking, 10μH	AC
			(AH131U/AH151U/AH161U)		L917	RCiLP0344TAZZ		Coil, CiLP0344TA	AD
Q7454	VSKRX202U++-1Y		KRX202U++	AC	L918	RCiLP0287TAZZ		Coil, 47μH	AD
			(AH131U/AH151U/AH161U)		L919	VPCCM2R2MR09N		Peaking, 2.2μH	AC
Q7455	VSKTX101UY+-1Y		KTX101UY+	AB	L920	RCiLP0344TAZZ		Coil, CiLP0344TA	AD
Q8401	VSKTA2014EY-1Y		KTA2014EY	AB	L921	RCiLP0271TAZZ		Coil, 33μH	AE
Q8402	VSKTC4075EY-1Y		KTC4075EY	AB	L922	RCiLP0271TAZZ		Coil, 33μH	AE
Q8404	VSKTC4075EY-1Y		KTC4075EY	AB	L923	RCiLP0344TAZZ		Coil, CiLP0344TA	AD
Q8405	VS2SC5383F/-1		2SC5383F	AB	L924	RCiLP0343TAZZ		Coil, 10μH	AD
Q8406	VS2SA1989R/-1		2SA1989R	AB	L925	RCiLP0343TAZZ		Coil, 10μH	AD
Q8407	VSRT1N241U/-1		RT1N241U	AB	L926	VPCCM2R2MR09N		Peaking, 2.2μH	AC
Q8451	VSKTC801UY+-1Y		KTC801UY+	AC	L927	VPCQM2R2MR15N		Peaking, 2.2μH	AC
Q8452	VSKTC801UY+-1Y		KTC801UY+	AC					
Q8453	VSRT1P140U/-1		RT1P140U	AB					

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
L928	RCiLP0344TAZZ		Coil, CiLP0344TA	AD	C213	VCSATA0YJ106M	10	7V Tantalum (AH151U/AH161U)	AC
L929	RCiLP0343TAZZ		Coil, 10μH	AD	C403	VCKYCZ1CB103K	0.01	16V Ceramic	AB
L930	RCiLP0344TAZZ		Coil, CiLP0344TA	AD	C404	VCKYCZ1CB103K	0.01	16V Ceramic	AB
L931	RCiLP0343TAZZ		Coil, CiLP0343TA	AD	C405	VCKYCZ1CB103K	0.01	16V Ceramic	AB
L1401	VPD9M2R7J1R0N		Peaking, 2.7μH	AC	C406	VCKYCZ1CB103K	0.01	16V Ceramic	AB
L1402	VPD9M1R0JR57N		Peaking, 1μH	AB	C407	VCKYCZ1CB103K	0.01	16V Ceramic	AB
L1451	VPAWM220K2R7N		Peaking, 22μH	AC	C408	VCKYCZ1CB103K	0.01	16V Ceramic	AB
L1452	VPAWM100K1R5N		Peaking, 10μH	AC	C409	VCKYCZ1CB103K	0.01	16V Ceramic	AB
L1453	VPD9M120J1R9N		Peaking, 12μH	AB	C411	VCSATA0YJ106M	10	7V Tantalum	AC
L3801	VPD9M150J2R2N		Peaking, 15μH(AH161U)	AC	C412	VCSATA0YJ106M	10	7V Tantalum	AC
L3801	VPD9M220J2R7N		Peaking, 22μH (A111U/AH131U/AH151U)	AC	C414	VCKYCZ1CB103K	0.01	16V Ceramic	AB
L3802	VPD9M100J1R7N		Peaking, 10μH	AC	C415	VCKYCZ1CB103K	0.01	16V Ceramic	AB
L6401	VPD9M820J9R5N		Peaking, 82μH	AC	C416	VCKYCZ1CB103K	0.01	16V Ceramic	AB
L6402	VP-1M331J260N		Peaking, 330μH	AC	C419	VCKYCZ1CB103K	0.01	16V Ceramic	AB
L6403	VPD9M680J8R6N		Peaking, 68μH	AC	C421	VCSATA0YJ106M	10	7V Tantalum	AC
L7401	VPD9M1R0JR57N		Peaking, 1μH	AB	C422	VCKYCZ1CB103K	0.01	16V Ceramic	AB
L7402	VPD9M180J2R4N		Peaking, 18μH (AH131U/AH151U/AH161U)	AC	C425	VCKYCZ1CB103K	0.01	16V Ceramic	AB
L7403	VPD9M470J6R6N		Peaking, 47μH	AC	C426	VCKYCZ1CB103K	0.01	16V Ceramic	AB
L7404	VP-1M471J310N		Peaking, 470μH	AC	C429	VCKYCZ1CB103K	0.01	16V Ceramic	AB
L7405	VPD9M181J190N		Peaking, 180μH	AC	C430	VCKYCZ1CB103K	0.01	16V Ceramic	AB
L7406	VP-1M331J260N		Peaking, 330μH	AC	C432	VCKYCZ1CB103K	0.01	16V Ceramic	AB
L7407	VPD9M330J3R6N		Peaking, 33μH (AH131U/AH151U/AH161U)	AC	C434	VCKYCZ1CB103K	0.01	16V Ceramic	AB
L7408	VP-1M331J260N		Peaking, 330μH	AC	C436	VCKYCZ1CB103K	0.01	16V Ceramic	AB
L7452	VPD9M8R2J2R0N		Peaking, 8.2μH	AC	C437	VCKYCZ1CB103K	0.01	16V Ceramic	AB
L7453	VPD9M8R2J2R0N		Peaking, 8.2μH (AH131U/AH151U/AH161U)	AC	C439	VCKYCZ1CB103K	0.01	16V Ceramic	AB
L8401	VPD9M1R8JR84N		Peaking, 1.8μH	AC	C440	VCKYCY0JB105K	1	6.3V Ceramic	AC
L8402	VPD9M2R2JR96N		Peaking, 2.2μH	AC	C441	VCKYCZ1AB104K	0.1	10V Ceramic	AB
L8404	VPD9M221J210N		Peaking, 220μH	AB	C442	VCKYCZ1CB103K	0.01	16V Ceramic	AB
L8405	VP-1M391J330N		Peaking, 390μH	AB	C443	VCKYCZ1CB103K	0.01	16V Ceramic	AB
L8451	VPD9M820J9R5N		Peaking, 82μH	AC	C445	VCKYCZ1CB103K	0.01	16V Ceramic	AB
L8452	VPD9M221J210N		Peaking, 220μH	AB	C446	VCKYCZ1CB103K	0.01	16V Ceramic	AB
⚠ T901	RTRNZ0154TAZZ		Power Transformer	AF	C447	VCKYCZ1AB104K	0.1	10V Ceramic	AB
CAPACITORS					C448	VCSATA0YJ106M	10	7V Tantalum	AC
C151	VCSATA1AJ156M	15	10V Tantalum	AD	C449	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C152	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C455	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C153	VCSATA1AJ156M	15	10V Tantalum	AD	C456	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C154	VCSATA0YJ156MY	15	7V Tantalum	AD	C457	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C155	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C458	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C156	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C460	VCKYCY0JB105K	1	6.3V Ceramic	AC
C158	VCKYCZ1HB471K	470p	50V Ceramic	AB	C461	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C159	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C462	VCSATA1AJ106M	10	10V Tantalum	AC
C161	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C463	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C162	VCSATA0YJ106M	10	7V Tantalum	AC	C464	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C163	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C465	VCKYCZ1HB271K	270p	50V Ceramic	AC
C164	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C466	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C201	VCKYTV1AB105K	1	10V Ceramic (AH151U/AH161U)	AD	C467	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C202	VCSATA0YJ106M	10	7V Tantalum (AH151U/AH161U)	AC	C469	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C203	VCKYCZ1CB103K	0.01	16V Ceramic (AH151U/AH161U)	AB	C471	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C204	VCKYCZ1CB103K	0.01	16V Ceramic (AH151U/AH161U)	AB	C472	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C205	VCKYCZ1CB103K	0.01	16V Ceramic (AH151U/AH161U)	AB	C473	VCCSZ1HH151J	150p	50V Ceramic	AB
C206	VCKYCZ1CB103K	0.01	16V Ceramic (AH151U/AH161U)	AB	C475	VCSATA0YJ106M	10	7V Tantalum	AC
C207	VCKYCZ1CB103K	0.01	16V Ceramic (AH151U/AH161U)	AB	C601	VCSATA1CJ225M	2.2	16V Tantalum	AC
C208	VCKYCZ1CB103K	0.01	16V Ceramic (AH151U/AH161U)	AB	C602	VCKYTV1CF225Z	2.2	16V Ceramic	AC
C209	VCKYCZ1CB103K	0.01	16V Ceramic (AH151U/AH161U)	AB	C603	VCEAPF0JW476M	47	6.3V Electrolytic	AB
C210	VCKYCZ1CB103K	0.01	16V Ceramic (AH151U/AH161U)	AB	C604	VCSATE0YJ476MY	47	10V Tantalum	AD
C211	VCKYTV1AB105K	1	10V Ceramic (AH151U/AH161U)	AD	C605	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C212	VCKYCZ1CB103K	0.01	16V Ceramic (AH151U/AH161U)	AB	C606	VCKYCZ1CB103K	0.01	16V Ceramic	AB
					C607	VCKYCZ1CB103K	0.01	16V Ceramic	AB
					C608	VCKYCZ1CB103K	0.01	16V Ceramic	AB
					C609	VCKYCY1CF334Z	0.33	16V Ceramic	AA
					C610	VCKYCZ1CB103K	0.01	16V Ceramic	AB
					C611	VCEAPF0JW226M	22	6.3V Electrolytic	AB
					C612	VCEAPH1HW474M	0.47	50V Electrolytic	AB
					C613	VCKYCZ1CB103K	0.01	16V Ceramic	AB
					C614	VCKYCZ1CB223K	0.022	16V Ceramic	AC
					C615	VCEAPH1HW105M	1	50V Electrolytic	AB
					C616	VCKYCZ1HB102K	1000p	50V Ceramic	AB
					C617	VCEAPF0JW336M	33	6.3V Electrolytic	AB
					C618	VCKYCY0JB105K	1	6.3V Ceramic	AC
					C619	VCSAPD1DJ474M	0.47	20V Tantalum	AD
					C620	VCKYCZ1CB103K	0.01	16V Ceramic	AB
					C621	VCSAPD1DJ474M	0.47	20V Tantalum	AD
					C622	VCSAPD1DJ474M	0.47	20V Tantalum	AD
					C623	VCSATA0YJ106M	10	7V Tantalum	AC

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
C624	VCEAPF0JW476M	47	6.3V Electrolytic	AB	C923	VCKYTV1EB104K	0.1	25V Ceramic	AB
C625	VCSAPD1DJ474M	0.47	20V Tantalum	AD	C924	VCKYTV1CF105Z	1	16V Ceramic	AB
C626	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C925	VCKYTV1CF105Z	1	16V Ceramic	AB
C627	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C926	VCKYTV1CF105Z	1	16V Ceramic	AB
C628	VCKYCZ1EB682K	6800p	25V Ceramic	AB	C927	VCKYTV1EB104K	0.1	25V Ceramic	AB
C629	VCKYCZ1HB332K	3300p	50V Ceramic	AA	C930	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C630	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C931	RC-KZ0070TAZZ	4.7	16V Ceramic	AD
C631	VCSAPD1CJ105M	1	16V Tantalum	AC	C932	RC-KZ0070TAZZ	4.7	16V Ceramic	AD
C632	VCKYCZ1HB222K	2200p	50V Ceramic	AB	C933	RC-KZ0055TAZZ	3.3	16V Ceramic	AD
C633	VCKYCZ1AB104K	0.1	10V Ceramic	AB	C934	RC-KZ0054TAZZ	2.2	16V Ceramic	AD
C634	VCKYCZ1AB104K	0.1	10V Ceramic	AB	C935	RC-KZ0053TAZZ	10	10V Ceramic	AD
C635	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C936	RC-KZ0053TAZZ	10	10V Ceramic	AD
C636	VCSAPD1CJ105M	1	16V Tantalum	AC	C937	RC-KZ0070TAZZ	4.7	16V Ceramic	AD
C637	VCSATE1AJ476M	47	10V Tantalum	AD	C938	RC-KZ0070TAZZ	4.7	16V Ceramic	AD
C638	VCKYCZ1CB223K	0.022	16V Ceramic	AC	C939	RC-KZ0070TAZZ	4.7	16V Ceramic	AD
C641	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C940	RC-KZ0055TAZZ	3.3	16V Ceramic	AD
C701	VCKYCZ1HB102K	1000p	50V Ceramic	AB	C941	RC-KZ0055TAZZ	3.3	16V Ceramic	AD
C702	VCKYCZ1HB102K	1000p	50V Ceramic	AB	C942	RC-KZ0084TAZZ	1	25V Ceramic	AC
C703	VCKYCZ1HB102K	1000p	50V Ceramic	AB	C943	RC-KZ0070TAZZ	4.7	16V Ceramic	AD
C704	VCKYCZ1HB102K	1000p	50V Ceramic	AB	C944	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C705	VCKYCZ1HB102K	1000p	50V Ceramic	AB	C945	VCKYCY1EF104Z	0.1	25V Ceramic	AA
			(AH151U/AH161U)		C946	RC-KZ0055TAZZ	3.3	16V Ceramic	AD
C706	VCKYCZ1HB102K	1000p	50V Ceramic	AB	C947	RC-KZ0070TAZZ	4.7	16V Ceramic	AD
C707	VCKYCZ1HB102K	1000p	50V Ceramic	AB	C948	RC-KZ0070TAZZ	4.7	16V Ceramic	AD
			(AH151U/AH161U)		C952	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C708	VCKYCZ1AB104K	0.1	10V Ceramic	AB	C953	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C709	RC-KZ0054TAZZ	2.2	16V Ceramic	AD	C955	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C711	VCKYCY1AF105Z	1	10V Ceramic	AC	C956	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C712	VCCCCZ1HH220J	22p	50V Ceramic	AB	C1401	VCCCCZ1HH390J	39p	50V Ceramic	AB
C713	VCCCCZ1HH180J	18p	50V Ceramic	AB	C1405	VCCCCZ1HH820J	82p	50V Ceramic	AB
C714	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C1406	VCCCCZ1HH330J	33p	50V Ceramic	AB
C715	VCKYCZ1HB102K	1000p	50V Ceramic	AB	C1407	VCCCCZ1HH151J	150p	50V Ceramic	AB
C716	VCSATA1AJ106M	10	10V Tantalum	AC	C1408	VCCCCZ1HH151J	150p	50V Ceramic	AB
C717	VCKYCZ1AB104K	0.1	10V Ceramic	AB	C1415	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C718	VCKYCZ1AB104K	0.1	10V Ceramic	AB	C1416	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C720	VCKYCZ1AB104K	0.1	10V Ceramic	AB	C1451	VCSATE1AJ476M	47	10V Tantalum	AD
C721	VCCCCZ1HH330J	33p	50V Ceramic	AB	C1452	VCSATE1AJ476M	47	10V Tantalum	AD
C722	VCKYCZ1AB104K	0.1	10V Ceramic	AB	C1453	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C724	VCKYCZ1AB104K	0.1	10V Ceramic	AB	C1454	VCSATA0YJ106M	10	7V Tantalum	AC
C725	VCKYCZ1AB104K	0.1	10V Ceramic	AB	C1456	VCCCCZ1HH100D	10p	50V Ceramic	AB
C726	VCKYCZ1HB471K	470p	50V Ceramic	AB	C1458	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C727	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C1459	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C728	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C1801	VCKYTV1EB104K	0.1	25V Ceramic	AB
C729	VCKYCZ1AB104K	0.1	10V Ceramic	AB	C1803	VCKYCZ1EB103KY	0.01	25V Ceramic	AA
C730	VCKYCZ1AB104K	0.1	10V Ceramic	AB	C1805	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C731	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C1806	VCKYCZ1EB103KY	0.01	25V Ceramic	AA
C732	VCSATA1AJ106M	10	10V Tantalum	AC	C1808	VCKYTV1EB104K	0.1	25V Ceramic	AB
C733	VCKYCY1AF105Z	1	10V Ceramic	AC	C1809	VCKYCY0JB105K	1	6.3V Ceramic	AC
C737	VCKYCZ1AB104K	0.1	10V Ceramic	AB	C1810	VCSATA1EJ105M	1	25V Tantalum	AC
C738	VCKYCZ1AB104K	0.1	10V Ceramic	AB	C1812	VCKYCZ1EB103KY	0.01	25V Ceramic	AA
C750	VCKYCY0JB105K	1	6.3V Ceramic	AC	C1813	VCSATA1VJ105M	1	35V Tantalum	AC
C800	VCKYTQ1CB105K	1	16V Ceramic	AC	C1901	VCKYCZ1HB102K	1000p	50V Ceramic	AB
C801	VCKYTV1CB105K	1	16V Ceramic	AC	C1902	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C803	VCKYCY0JB105K	1	6.3V Ceramic	AC	C1903	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C804	VCKYCY0JB105K	1	6.3V Ceramic	AC	C1904	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C805	VCKYCY0JB105K	1	6.3V Ceramic	AC	C1907	VCKYCZ1AB473K	0.047	10V Ceramic	AB
C900	RC-KZ0070TAZZ	4.7	16V Ceramic	AD	C1908	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C901	RC-KZ0070TAZZ	4.7	16V Ceramic	AD	C1909	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C902	RC-KZ0070TAZZ	4.7	16V Ceramic	AD	C1910	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C903	RC-KZ0070TAZZ	4.7	16V Ceramic	AD	C1911	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C904	RC-KZ0070TAZZ	4.7	16V Ceramic	AD	C1912	VCCCCZ1HH101J	100p	50V Ceramic	AB
C905	RC-KZ0070TAZZ	4.7	16V Ceramic	AD	C1913	VCKYCY1AB224K	0.22	10V Ceramic	AB
C906	RC-KZ0070TAZZ	4.7	16V Ceramic	AD	C1914	VCKYCZ1HB102K	1000p	50V Ceramic	AB
C907	RC-KZ0070TAZZ	4.7	16V Ceramic	AD	C1915	VCKYCZ1EB472K	4700p	25V Ceramic	AB
C909	VCKYCY0JB105K	1	6.3V Ceramic	AC	C1916	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C910	VCKYTV1AB105K	1	10V Ceramic	AD	C1917	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C912	RC-KZ0070TAZZ	4.7	16V Ceramic	AD	C1918	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C915	VCKYCY0JB105K	1	6.3V Ceramic	AC	C1919	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C916	RC-KZ0054TAZZ	2.2	16V Ceramic	AD	C1920	VCKYCZ1HB152K	1500p	50V Ceramic	AB
C917	RC-KZ0054TAZZ	2.2	16V Ceramic	AD	C1921	VCKYCZ1HB222K	2200p	50V Ceramic	AB
C918	RC-KZ0055TAZZ	3.3	16V Ceramic	AD	C1922	VCKYCZ1HB561K	560p	50V Ceramic	AC
C919	RC-KZ0084TAZZ	1	25V Ceramic	AC	C1923	VCKYCZ1HB102K	1000p	50V Ceramic	AB
C920	RC-KZ0055TAZZ	3.3	16V Ceramic	AD	C1924	VCKYCZ1HB102K	1000p	50V Ceramic	AB
C921	RC-KZ0084TAZZ	1	25V Ceramic	AC	C1925	VCKYCZ1HB332K	3300p	50V Ceramic	AA
C922	RC-KZ0084TAZZ	1	25V Ceramic	AC	C1926	VCKYCZ1HB152K	1500p	50V Ceramic	AB

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
R609	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA	R766	VRS-CZ1JF181J	180	1/16W Metal Oxide	AA
R612	VRS-CZ1JF681J	680	1/16W Metal Oxide	AA	R767	VRS-CZ1JF392J	3.9k	1/16W Metal Oxide	AA
R614	VRS-CZ1JF122J	1.2k	1/16W Metal Oxide	AA	R768	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R615	VRS-CZ1JF561J	560	1/16W Metal Oxide	AA	R769	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA
R616	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA	R772	VRS-CZ1JF153D	15k	1/16W Metal Oxide	AB
R617	VRS-CZ1JF335J	3.3M	1/16W Metal Oxide	AA	R773	VRS-CZ1JF103D	10k	1/16W Metal Oxide	AB
R618	VRS-CZ1JF154J	150k	1/16W Metal Oxide	AA	R774	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R619	VRS-CZ1JF274J	270k	1/16W Metal Oxide	AA	R775	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R624	VRS-CZ1JF182J	1.8k	1/16W Metal Oxide	AA	R776	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R625	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R777	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R626	VRS-CZ1JF122J	1.2k	1/16W Metal Oxide	AA	R778	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R627	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R779	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R628	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA	R780	VRS-CZ1JF330J	33	1/16W Metal Oxide	AA
R629	VRS-CZ1JF152J	1.5k	1/16W Metal Oxide	AA	R781	VRS-CZ1JF330J	33	1/16W Metal Oxide	AA
R632	VRS-CZ1JF822J	8.2k	1/16W Metal Oxide	AA	R785	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R633	VRS-CZ1JF224J	220k	1/16W Metal Oxide	AA	R786	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R702	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R787	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R703	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R788	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R704	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R789	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R705	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R790	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R707	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R791	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R708	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R792	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R709	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R793	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R710	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R794	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R711	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R795	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA
R712	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R797	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R713	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R798	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R714	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R799	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R715	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R801	VRS-CZ1JF101J	100	1/16W Metal Oxide	AA
R716	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R802	VRS-CZ1JF101J	100	1/16W Metal Oxide	AA
R717	VRS-CZ1JF224J	220k	1/16W Metal Oxide	AA	R803	VRS-CZ1JF101J	100	1/16W Metal Oxide	AA
R718	VRS-CZ1JF224J	220k	1/16W Metal Oxide	AA	R902	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R719	VRS-CZ1JF224J	220k	1/16W Metal Oxide	AA	R903	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA
R720	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R904	VRS-CZ1JF562J	5.6k	1/16W Metal Oxide	AA
R722	VRS-CZ1JF224J	220k	1/16W Metal Oxide	AA	R905	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA
R723	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA	R907	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA
R724	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA	R908	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA
R725	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA	R911	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA
R726	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA	R912	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA
R727	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA	R913	VRS-CZ1JF273J	27k	1/16W Metal Oxide	AA
R728	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA	R914	VRS-CZ1JF753J	75k	1/16W Metal Oxide	AA
R729	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA	R915	VRS-CZ1JF823J	82k	1/16W Metal Oxide	AA
R730	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA	R916	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA
R731	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA	R917	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
			(AH151U/AH161U)		R918	VRS-CZ1JF753J	75k	1/16W Metal Oxide	AA
R732	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA	R919	VRS-CZ1JF123J	12k	1/16W Metal Oxide	AA
			(AH151U/AH161U)		R920	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA
R733	VRS-CZ1JF822J	8.2k	1/16W Metal Oxide	AA	R921	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA
R734	VRS-CZ1JF822J	8.2k	1/16W Metal Oxide	AA	R922	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA
R735	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R923	VRS-CZ1JF823J	82k	1/16W Metal Oxide	AA
R737	VRS-CZ1JF334J	330k	1/16W Metal Oxide	AA	R924	VRS-CZ1JF393J	39k	1/16W Metal Oxide	AA
R738	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA	R925	VRS-CZ1JF753J	75k	1/16W Metal Oxide	AA
R740	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA	R926	VRS-CZ1JF393J	39k	1/16W Metal Oxide	AA
R741	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA	R928	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA
R742	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R929	VRS-CZ1JF681J	680	1/16W Metal Oxide	AA
R743	VRS-CZ1JF152J	1.5k	1/16W Metal Oxide	AA	R930	VRS-CZ1JF102D	1k	1/16W Metal Oxide	AA
R744	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R931	VRS-CY1JFR22J	0.22	1/16W Metal Oxide	AA
R745	VRS-CZ1JF183J	18k	1/16W Metal Oxide	AA	R933	VRS-CZ1JF224J	220k	1/16W Metal Oxide	AA
R746	VRS-CZ1JF682J	6.8k	1/16W Metal Oxide	AA	R934	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R747	VRS-CZ1JF563D	56k	1/16W Metal Oxide	AA	R935	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R748	VRS-CZ1JF154J	150k	1/16W Metal Oxide	AA	R936	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R749	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R937	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA
R750	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA	R938	VRS-CZ1JF822J	8.2k	1/16W Metal Oxide	AA
R751	VRS-CZ1JF184J	180k	1/16W Metal Oxide	AA	R939	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA
R753	VRS-CZ1JF221J	220	1/16W Metal Oxide	AA	R940	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R755	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R941	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R756	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R942	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R757	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R943	VRS-CZ1JF123D	12k	1/16W Metal Oxide	AA
R758	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R944	VRS-CZ1JF103D	10k	1/16W Metal Oxide	AB
R759	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA	R945	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA
R760	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA	R946	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA
R761	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R947	VRS-CZ1JF123D	12k	1/16W Metal Oxide	AA
R762	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R949	VRS-CZ1JF122J	1.2k	1/16W Metal Oxide	AA
R763	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R951	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R765	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA	R1403	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
R1404	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA	R1950	VRS-CZ1JF563J	56k	1/16W Metal Oxide	AA
R1407	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R1951	VRS-CZ1JF103D	10k	1/16W Metal Oxide	AB
R1408	VRS-CZ1JF152J	1.5k	1/16W Metal Oxide	AA	R1952	VRS-CZ1JF562D	5.6k	1/16W Metal Oxide	AB
R1409	VRS-CZ1JF121J	120	1/16W Metal Oxide	AA	R1953	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA
R1410	VRS-CZ1JF820J	82	1/16W Metal Oxide	AA	R1955	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R1411	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R1956	VRS-CZ1JF473D	47k	1/16W Metal Oxide	AB
R1413	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R1957	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA
R1416	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA	R1959	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA
R1452	VRS-CZ1JF750D	75	1/16W Metal Oxide	AA	R1960	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R1453	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R1961	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA
R1454	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R1962	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA
R1455	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R1963	VRS-CZ1JF331J	330	1/16W Metal Oxide	AA
R1458	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R1965	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R1803	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R1966	VRS-CZ1JF561J	560	1/16W Metal Oxide	AA
R1806	VRS-CZ1JF101J	100	1/16W Metal Oxide	AA	R1967	VRS-CZ1JF561J	560	1/16W Metal Oxide	AA
R1807	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA	R1968	VRS-CZ1JF121J	120	1/16W Metal Oxide	AA
R1808	VRS-CZ1JF123J	12k	1/16W Metal Oxide	AA	R1970	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA
R1809	VRS-CZ1JF234J	330k	1/16W Metal Oxide	AA	R1972	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R1810	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA	R1973	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R1812	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA	R1974	VRS-CZ1JF683J	68k	1/16W Metal Oxide	AA
R1813	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA	R1975	VRS-CZ1JF183J	18k	1/16W Metal Oxide	AA
R1814	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA	R1976	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA
R1815	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA	R1980	VRS-CZ1JF561J	560	1/16W Metal Oxide	AA
R1816	VRS-CZ1JF100J	10	1/16W Metal Oxide	AA	R1981	VRS-CZ1JF561J	560	1/16W Metal Oxide	AA
R1817	VRS-CZ1JF100J	10	1/16W Metal Oxide	AA	R1982	VRS-CZ1JF121J	120	1/16W Metal Oxide	AA
R1818	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA	R2402	VRS-CZ1JF561J	560	1/16W Metal Oxide	AA
R1819	VRS-CZ1JF683J	68k	1/16W Metal Oxide	AA	R2403	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA
R1820	VRS-CZ1JF512J	5.1k	1/16W Metal Oxide	AB	R2404	VRS-CZ1JF152J	1.5k	1/16W Metal Oxide	AA
R1821	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R2405	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA
R1901	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R2406	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA
R1902	VRS-CZ1JF683J	68k	1/16W Metal Oxide	AA	R2407	VRS-CZ1JF273J	27k	1/16W Metal Oxide	AA
R1903	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA	R2408	VRS-CZ1JF822J	8.2k	1/16W Metal Oxide	AA
R1905	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA	R2409	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R1906	VRS-CZ1JF124J	120k	1/16W Metal Oxide	AA	R2410	VRS-CZ1JF152J	1.5k	1/16W Metal Oxide	AA
R1907	VRS-CZ1JF183J	18k	1/16W Metal Oxide	AA	R2411	VRS-CZ1JF821J	820	1/16W Metal Oxide	AA
R1908	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R2412	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA
R1909	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R2413	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R1910	VRS-CZ1JF363J	36k	1/16W Metal Oxide	AA	R2414	VRS-CZ1JF183D	18k	1/16W Metal Oxide	AB
R1911	VRS-CZ1JF563J	56k	1/16W Metal Oxide	AA	R2415	VRS-CZ1JF561D	560	1/16W Metal Oxide	AA
R1912	VRS-CZ1JF183J	18k	1/16W Metal Oxide	AA	R2416	VRS-CZ1JF561D	560	1/16W Metal Oxide	AA
R1913	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA	R2417	VRS-CZ1JF183D	18k	1/16W Metal Oxide	AB
R1914	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R2418	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R1915	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA	R2419	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R1916	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA	R2420	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA
R1917	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R2421	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA
R1919	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R2423	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R1920	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R2901	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA
R1921	VRS-CZ1JF682J	6.8k	1/16W Metal Oxide	AA	R2905	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R1922	VRS-CZ1JF562J	5.6k	1/16W Metal Oxide	AA	R2908	VRS-CZ1JF681J	680	1/16W Metal Oxide	AA
R1923	VRS-CZ1JF562J	5.6k	1/16W Metal Oxide	AA	R2911	VRS-CZ1JF562J	5.6k	1/16W Metal Oxide	AA
R1924	VRS-CZ1JF123J	12k	1/16W Metal Oxide	AA	R2913	VRS-TV1JD3R3J	3.3	1/16W Metal Oxide	AA
R1925	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA	R2914	VRS-CZ1JF334D	330k	1/16W Metal Oxide	AA
R1926	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA	R2915	VRS-TQ2BD471J	470	1/8W Metal Oxide	AA
R1927	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R2921	VRS-CZ1JF184D	180k	1/16W Metal Oxide	AB
R1929	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA	R2922	VRS-CZ1JF184D	180k	1/16W Metal Oxide	AB
R1930	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA	R2923	VRS-CZ1JF823D	82k	1/16W Metal Oxide	AB
R1931	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA	R2925	VRS-CZ1JF123J	12k	1/16W Metal Oxide	AA
R1932	VRS-CZ1JF183J	18k	1/16W Metal Oxide	AA	R2932	VRS-TV2BDR12J	0.12	1/8W Metal Oxide	AB
R1933	VRS-CZ1JF393J	39k	1/16W Metal Oxide	AA	R2933	VRS-TV2BDR12J	0.12	1/8W Metal Oxide	AB
R1934	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R2934	VRS-CZ1JF821J	820	1/16W Metal Oxide	AA
R1935	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA	R2935	VRS-CZ1JF334J	330k	1/16W Metal Oxide	AA
R1936	VRS-CZ1JF243J	24k	1/16W Metal Oxide	AA	R2936	VRS-CZ1JF332J	3.3k	1/16W Metal Oxide	AA
R1937	VRS-CZ1JF823J	82k	1/16W Metal Oxide	AA	R2938	VRS-CZ1JF332J	3.3k	1/16W Metal Oxide	AA
R1938	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA	R2939	VRS-CZ1JF472D	4.7k	1/16W Metal Oxide	AB
R1939	VRS-CZ1JF393J	39k	1/16W Metal Oxide	AA	R2940	VRS-CZ1JF123J	12k	1/16W Metal Oxide	AA
R1940	VRS-CZ1JF563J	56k	1/16W Metal Oxide	AA	R2941	VRS-CZ1JF222D	2.2k	1/16W Metal Oxide	AA
R1941	VRS-CZ1JF273D	27k	1/16W Metal Oxide	AA	R2942	VRS-CZ1JF123D	12k	1/16W Metal Oxide	AA
R1942	VRS-CZ1JF333D	33k	1/16W Metal Oxide	AB	R2943	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R1943	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA	R2944	VRS-CZ1JF152J	1.5k	1/16W Metal Oxide	AA
R1944	VRS-CZ1JF333D	33k	1/16W Metal Oxide	AB	R2945	VRS-TV2BDR12J	0.12	1/8W Metal Oxide	AB
R1945	VRS-CZ1JF563D	56k	1/16W Metal Oxide	AA	R2946	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R1946	VRS-CZ1JF203D	20k	1/16W Metal Oxide	AA	R2947	VRS-CZ1JF473D	47k	1/16W Metal Oxide	AB
R1947	VRS-CZ1JF333D	33k	1/16W Metal Oxide	AB	R2948	VRS-CZ1JF222D	2.2k	1/16W Metal Oxide	AA
R1948	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA	R2949	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R1949	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA	R2950	VRS-CZ1JF101J	100	1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
R2951	VRS-CZ1JF392J	3.9k	1/16W Metal Oxide	AA	R7402	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA
R3602	VRS-CZ1JF002J	1k	1/16W Metal Oxide	AA	R7404	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R3603	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA	R7405	VRS-CZ1JF151J	150	1/16W Metal Oxide	AA
R3800	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA	R7406	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R3801	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA	R7407	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA
R3802	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA	R7408	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA
R3803	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA	R7409	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R3804	VRS-CZ1JF683J	68k	1/16W Metal Oxide	AA				(A111U)	
R3805	VRS-CZ1JF272D	2.7k	1/16W Metal Oxide	AB	R7409	VRS-CZ1JF152J	1.5k	1/16W Metal Oxide	AA
R3806	VRS-CZ1JF562D	5.6k	1/16W Metal Oxide	AB				(AH131U/AH151U/AH161U)	
R3807	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA	R7410	VRS-CZ1JF152J	1.5k	1/16W Metal Oxide	AA
R3808	VRS-CZ1JF683J	68k	1/16W Metal Oxide	AA	R7411	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R3809	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA	R7413	VRS-CZ1JF122J	1.2k	1/16W Metal Oxide	AA
R3810	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R7414	VRS-CZ1JF221J	220	1/16W Metal Oxide	AA
R3812	VRS-CZ1JF564J	560k	1/16W Metal Oxide	AA	R7415	VRS-CZ1JF681J	680	1/16W Metal Oxide	AA
R3816	VRS-CZ1JF564J	560k	1/16W Metal Oxide	AA	R7416	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA
R3817	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA	R7417	VRS-CZ1JF561J	560	1/16W Metal Oxide	AA
R3818	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA	R7419	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R3820	VRS-CZ1JF821J	820	1/16W Metal Oxide	AA				(AH131U/AH151U/AH161U)	
R3822	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA	R7420	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R3823	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA				(A111U)	
R3824	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA	R7421	VRS-CZ1JF273J	27k	1/16W Metal Oxide	AA
R3826	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA				(AH131U/AH151U/AH161U)	
R3828	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R7421	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA
R3829	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA				(A111U)	
			(A111U/AH131U/AH151U)		R7422	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA
R3830	VRS-CZ1JF393J	39k	1/16W Metal Oxide	AA				(A111U)	
R3831	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA	R7422	VRS-CZ1JF183J	18k	1/16W Metal Oxide	AA
R3832	VRS-CZ1JF393J	39k	1/16W Metal Oxide	AA				(AH131U/AH151U/AH161U)	
R3833	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA	R7423	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R3834	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA	R7424	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R3835	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA	R7426	VRS-CZ1JF271J	270	1/16W Metal Oxide	AA
R3836	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA	R7454	VRS-CZ1JF331J	330	1/16W Metal Oxide	AA
R3837	VRS-CZ1JF561J	560	1/16W Metal Oxide	AA	R7455	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R3839	VRS-CZ1JF183J	18k	1/16W Metal Oxide	AA	R7456	VRS-CZ1JF152J	1.5k	1/16W Metal Oxide	AA
R3840	VRS-CZ1JF303D	30k	1/16W Metal Oxide	AA	R7459	VRS-CZ1JF391J	390	1/16W Metal Oxide	AA
			(A111U/AH131U/AH151U)		R7460	VRS-CZ1JF271J	270	1/16W Metal Oxide	AA
R3840	VRS-CZ1JF473D	47k	1/16W Metal Oxide	AB	R7461	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
			(AH161U)					(A111U)	
R3841	VRS-CZ1JF273J	27k	1/16W Metal Oxide	AA	R7461	VRS-CZ1JF152J	1.5k	1/16W Metal Oxide	AA
R3842	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA				(AH131U/AH151U/AH161U)	
R3843	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA	R7462	VRS-CZ1JF681J	680	1/16W Metal Oxide	AA
R3845	VRS-CZ1JF682J	6.8k	1/16W Metal Oxide	AA	R7463	VRS-CZ1JF561J	560	1/16W Metal Oxide	AA
R3846	VRS-CZ1JF273J	27k	1/16W Metal Oxide	AA	R7464	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R3848	VRS-CZ1JF273J	27k	1/16W Metal Oxide	AA	R7466	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R3850	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R7467	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA
R3853	VRS-CZ1JF273D	27k	1/16W Metal Oxide	AA	R7468	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA
R3854	VRS-CZ1JF183D	18k	1/16W Metal Oxide	AB	R7469	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA
R4402	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R7470	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA
R4403	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R7471	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R4703	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R8401	VRS-CZ1JF181J	180	1/16W Metal Oxide	AA
			(A111U)		R8402	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA
R4704	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R8403	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA
			(A111U)		R8404	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R4705	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R8407	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R6401	VRS-CZ1JF681J	680	1/16W Metal Oxide	AA	R8412	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA
R6402	VRS-CZ1JF821J	820	1/16W Metal Oxide	AA	R8413	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA
R6403	VRS-CZ1JF821J	820	1/16W Metal Oxide	AA	R8416	VRS-CZ1JF821J	820	1/16W Metal Oxide	AA
R6404	VRS-CZ1JF121J	120	1/16W Metal Oxide	AA	R8417	VRS-CZ1JF821J	820	1/16W Metal Oxide	AA
R6407	VRS-CZ1JF273J	27k	1/16W Metal Oxide	AA	R8418	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R6408	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA	R8419	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R6409	VRS-CZ1JF561J	560	1/16W Metal Oxide	AA	R8421	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA
R6410	VRS-CZ1JF561J	560	1/16W Metal Oxide	AA	R8422	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA
R6411	VRS-CZ1JF561J	560	1/16W Metal Oxide	AA	R8451	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA
R6413	VRS-CZ1JF123J	12k	1/16W Metal Oxide	AA	R8452	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA
R6414	VRS-CZ1JF561J	560	1/16W Metal Oxide	AA	R8453	VRS-CZ1JF152J	1.5k	1/16W Metal Oxide	AA
R6415	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R8454	VRS-CZ1JF392J	3.9k	1/16W Metal Oxide	AA
R6416	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R8455	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R6417	VRS-CZ1JF221J	220	1/16W Metal Oxide	AA	R8456	VRS-CZ1JF821J	820	1/16W Metal Oxide	AA
R6418	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA	R8457	VRS-CZ1JF122J	1.2k	1/16W Metal Oxide	AA
R6419	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA	R8458	VRS-CZ1JF681D	680	1/16W Metal Oxide	AB
R6452	VRS-CZ1JF821J	820	1/16W Metal Oxide	AA	R8459	VRS-CZ1JF181J	180	1/16W Metal Oxide	AA
R6456	VRS-CZ1JF243J	24k	1/16W Metal Oxide	AA	R8460	VRS-CZ1JF102D	1k	1/16W Metal Oxide	AA
R6457	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA	R8461	VRS-CZ1JF821J	820	1/16W Metal Oxide	AA
R7401	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA	R8462	VRS-CZ1JF183J	18k	1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
R8463	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	C12	VCKYCZ1EB103KY	0.01	25V Ceramic	AA
R8464	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	C13	VCKYCY1HB103K	0.01	50V Ceramic	AA
R8467	VRS-CZ1JF331D	330	1/16W Metal Oxide	AA	C14	VCSATA1DJ475M	4.7	20V Tantalum	AC
R9410	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	C15	VCKYCZ1CB103K	0.01	16V Ceramic	AB
BALUNES					C16	VCKYCZ1EB103KY	0.01	25V Ceramic	AA
FB151	RBLN-0107TAZZ		Balun, BLN-0107TA	AB	C17	VCSATE1VJ335M	3.3	35V Tantalum	AD
FB152	RBLN-0107TAZZ		Balun, BLN-0107TA	AB	C18	VCKYCZ1CB103K	0.01	16V Ceramic	AB
FB3800	RBLN-0028TAZZ		Balun, BLN-0028TA	AB	C20	VCSATA0YJ106M	10	7V Tantalum	AC
MISCELLANEOUS PARTS					C21	VCKYCZ1AB104K	0.1	10V Ceramic	AB
	PSLDM3238TAFW		Shield	AC	C22	VCKYCZ1CB103K	0.01	16V Ceramic	AB
	PSLDM3239TAFW		Shield	AC	C23	VCSATA1AJ106M	10	10V Tantalum	AC
	PSLDM3344TAFW		Shield	AC	C24	VCKYCZ1CB103K	0.01	16V Ceramic	AB
	PZETV0412TAZZ		Insulator	AD	C25	VCKYCY1HB102K	1000p	50V Ceramic	AB
CN701	QPLGN0263TAZZ		Plug, 2Pin	AB	C26	VCSATA0YJ106M	10	7V Tantalum	AC
CN702	QPLGN0264TAZZ		Plug, 2Pin	AC	C27	VCKYCZ1CB103K	0.01	16V Ceramic	AB
CN703	QSOCN0860TAZZ		Socket, 8Pin	AE	C28	VCCCCY1HH270G	27p	50V Ceramic	AB
CN3601	QSOCN1207REN1		Socket, 12Pin	AD	C29	VCSATE1VJ335M	3.3	35V Tantalum	AD
CN3800	QSOCN2471TAZZ		Socket, 24Pin	AE	C30	VCKYCZ1HB102K	1000p	50V Ceramic	AB
CN7401	QCNCM7068TAZZ		Connector, 70Pin	AG	C33	VCCCCY1HH360G	36p	50V Ceramic	AB
CN9401	QSOCN1860TAZZ		Socket, 18Pin	AE	C34	VCCCCY1HH180G	18p	50V Ceramic	AB
△ CP901	QFS-L2526TAZZ		Fuse, 2.5A 64V	AC	C35	VCKYCZ1CB103K	0.01	16V Ceramic	AB
△ CP902	QFS-L2526TAZZ		Fuse, 2.5A 64V	AC	C36	VCKYCZ1CB103K	0.01	16V Ceramic	AB
△ CP903	QFS-L2526TAZZ		Fuse, 2.5A 64V	AC	C37	VCSATA1AJ106M	10	10V Tantalum	AC
P601	QPLGN0263TAZZ		Plug, 2Pin	AB	C38	VCKYCY0JB105K	1	6.3V Ceramic	AC
P902	QPLGN0364TAZZ		Plug, 3Pin	AC	C101	VCKYTV1AB105K	1	10V Ceramic	AD
P2901	QPLGN0664TAZZ		Plug, 6Pin	AD	C102	VCKYTV1AB105K	1	10V Ceramic	AD
P2902	QPLGN0764TAZZ		Plug, 7Pin	AD	C103	VCKYCZ1CB103K	0.01	16V Ceramic	AB
SC151	QSOCN2071TAZZ		Socket, 20Pin	AD	C104	VCKYCZ1AB104K	0.1	10V Ceramic	AB
SC152	QSOCN2471TAZZ		Socket, 24Pin	AE	C105	VCKYCZ1CB103K	0.01	16V Ceramic	AB
SC901	QSOCN0772TAZZ		Socket, 7Pin	AC	C106	VCKYCZ1CB103K	0.01	16V Ceramic	AB
DUNTK2934QA04(VL-A111U)					C107	VCKYCZ1AB104K	0.1	10V Ceramic	AB
DUNTK2934QA07(VL-AH131U/AH151U/AH161U)					C108	VCSATA1AJ156M	15	10V Tantalum	AD
CAMERA UNIT					C109	VCKYCZ1CB103K	0.01	16V Ceramic	AB
INTEGRATED CIRCUITS					C114	VCKYCZ1CB103K	0.01	16V Ceramic	AB
IC11	VHIUPD16510-1		UPD16510, V_Driver	AR	C115	VCSATA1AJ106M	10	10V Tantalum	AC
IC12	VHILR38590/-1		LR38590, Timing Generator	AR	C116	VCKYCZ1AB104K	0.1	10V Ceramic	AB
IC101	VHICXA2006Q-1		CXA2006Q, CDS-AGC/ACC	AV	C119	VCKYCZ1HB471K	470p	50V Ceramic	AB
IC102	VHIMB88146A-1		MB88146A, D/A Converter	AH	C120	VCKYCZ1CB103K	0.01	16V Ceramic	AB
IC551	VHIUPD16835-1		UPD16835, Lens Driver	AM	C551	VCKYCZ1CB103K	0.01	16V Ceramic	AB
IC552	VHINJ12902V-1Y		NJ12902V, OP-Amp	AE	C552	VCKYCZ1CB103K	0.01	16V Ceramic	AB
IC553	VHINJM3414V-1		NJM3414V, OP-Amp	AF	C553	VCKYCZ1CB103K	0.01	16V Ceramic	AB
IC554	VHITVHC74T/-1		TVHC74T	AF	C554	VCCCCZ1HH330J	33p	50V Ceramic	AB
TRANSISTORS					C555	VCKYCZ1CB103K	0.01	16V Ceramic	AB
Q11	VSHN2C01FU/-1		HN2C01FU	AC	C556	VCKYCZ1CB103K	0.01	16V Ceramic	AB
Q12	VS2SA1989R/-1		2SA1989R	AB	C558	VCKYCZ1CB103K	0.01	16V Ceramic	AB
Q13	VS2SC5383F/-1		2SC5383F	AB	C559	VCKYCZ1CB103K	0.01	16V Ceramic	AB
Q14	VS2SC5383F/-1		2SC5383F	AB	C560	VCSATE1CJ156M	15	16V Tantalum	AD
Q15	VS2SA1989R/-1		2SA1989R	AB	C561	VCKYCZ1CB103K	0.01	16V Ceramic	AB
Q551	VSKRC852U++-1Y		KRC852U++	AC	C562	VCKYCZ1CB103K	0.01	16V Ceramic	AB
DIODE					C563	VCSATA0YJ106M	10	7V Tantalum	AC
D551	VHDKDS121E+-1Y		KDS121E+	AB	C565	VCSATA1AJ106M	10	10V Tantalum	AC
PACKAGED CIRCUIT					C566	VCKYCZ1CB103K	0.01	16V Ceramic	AB
X11	RCRSC0172TAZZ		Crystal, CRSC0172TA	AG	C567	VCKYCZ1CB103K	0.01	16V Ceramic	AB
COILS					C568	VCKYCZ1CB103K	0.01	16V Ceramic	AB
L11	VPAWM100K1R5N		Peaking, 10μH	AC	C569	VCKYCZ1AB104K	0.1	10V Ceramic	AB
L12	VPAWM220K2R7N		Peaking, 22μH	AC	C570	VCKYCZ1AB104K	0.1	10V Ceramic	AB
L13	VPD9M470J6R6N		Peaking, 47μH	AC	C571	VCKYCZ1CB103K	0.01	16V Ceramic	AB
L101	VPAWM100K1R5N		Peaking, 10μH	AC	C572	VCKYCZ1HB331K	330p	50V Ceramic	AA
L551	VPAWM100K1R5N		Peaking, 10μH	AC	C573	VCKYCY0JB105K	1	6.3V Ceramic	AC
L553	VPAWM100K1R5N		Peaking, 10μH	AC	C574	VCKYCZ1CB103K	0.01	16V Ceramic	AB
CAPACITORS					C575	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C11	VCKYCZ1CB103K	0.01	16V Ceramic	AB	RESISTORS				
					R17	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
					R18	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
					R19	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA
					R20	VRS-CZ1JF822J	8.2k	1/16W Metal Oxide	AA
					R21	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
					R23	VRS-CZ1JF330J	33	1/16W Metal Oxide	AA
					R27	VRS-CZ1JF820J	82	1/16W Metal Oxide	AA
					R28	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA
					R30	VRS-CZ1JF820J	82	1/16W Metal Oxide	AA
					R31	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA
					R33	VRS-CZ1JF102D	1k	1/16W Metal Oxide	AA
					R35	VRS-CZ1JF333D	33k	1/16W Metal Oxide	AB

Ref. No.	Part No.	★	Description	Code
R36	VRS-CZ1JF103D	10k	1/16W Metal Oxide	AB
R37	VRS-CZ1JF102D	1k	1/16W Metal Oxide	AA
R38	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R39	VRS-CZ1JF333D	33k	1/16W Metal Oxide	AB
R40	VRS-CZ1JF153D	15k	1/16W Metal Oxide	AB
R41	VRS-CZ1JF223D	22k	1/16W Metal Oxide	AB
R100	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R103	VRS-CZ1JF153D	15k	1/16W Metal Oxide	AB
R104	VRS-CZ1JF273D	27k	1/16W Metal Oxide	AA
R105	VRS-CZ1JF244D	240k	1/16W Metal Oxide	AA
R106	VRS-CZ1JF682J	6.8k	1/16W Metal Oxide	AA
R107	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA
R108	VRS-CZ1JF563J	56k	1/16W Metal Oxide	AA
R109	VRS-CZ1JF224J	220k	1/16W Metal Oxide	AA
R110	VRS-CZ1JF224J	220k	1/16W Metal Oxide	AA
R150	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R151	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R551	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R552	VRS-CZ1JF133J	13k	1/16W Metal Oxide	AA
R553	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R554	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R555	VRS-TV1JD5R6J	5.6	1/16W Metal Oxide	AA
R556	VRS-TV1JD5R6J	5.6	1/16W Metal Oxide	AA
R557	VRS-TV1JD5R6J	5.6	1/16W Metal Oxide	AA
R558	VRS-TV1JD5R6J	5.6	1/16W Metal Oxide	AA
R559	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA
R560	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA
R561	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R562	VRS-CZ1JF682J	6.8k	1/16W Metal Oxide	AA
R563	VRS-CZ1JF392J	3.9k	1/16W Metal Oxide	AA
R564	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R565	VRS-CZ1JF912J	9.1k	1/16W Metal Oxide	AB
R566	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R567	VRS-CZ1JF393J	39k	1/16W Metal Oxide	AA
R568	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R569	VRS-CZ1JF562J	5.6k	1/16W Metal Oxide	AA
R570	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R571	VRS-CZ1JF474J	470k	1/16W Metal Oxide	AA
R572	VRS-CZ1JF334D	330k	1/16W Metal Oxide	AA
R573	VRS-CZ1JF221J	220	1/16W Metal Oxide	AA
R574	VRS-CZ1JF221J	220	1/16W Metal Oxide	AA
R575	VRS-CZ1JF103D	10k	1/16W Metal Oxide	AB
R576	VRS-CZ1JF122J	1.2k	1/16W Metal Oxide	AA
R577	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA
R578	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA
R579	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R580	VRS-CZ1JF474J	470k	1/16W Metal Oxide	AA
R581	VRS-CZ1JF682J	6.8k	1/16W Metal Oxide	AA
R582	VRS-CZ1JF682J	6.8k	1/16W Metal Oxide	AA
R583	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R584	VRS-CZ1JF272D	2.7k	1/16W Metal Oxide	AB
R585	VRS-CZ1JF153D	15k	1/16W Metal Oxide	AB
R586	VRS-CZ1JF244D	240k	1/16W Metal Oxide	AA
R587	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R588	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA
R589	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA
BALUNES				
FB101	RBLN-0056TAZZ		Balun, BLN-0056TA	AC
FB102	RBLN-0056TAZZ		Balun, BLN-0056TA	AC
FB103	RBLN-0056TAZZ		Balun, BLN-0056TA	AC
FB104	RBLN-0056TAZZ		Balun, BLN-0056TA	AC
FB105	RBLN-0056TAZZ		Balun, BLN-0056TA	AC
FB106	RBLN-0056TAZZ		Balun, BLN-0056TA	AC
FB107	RBLN-0056TAZZ		Balun, BLN-0056TA	AC
FB109	RBLN-0107TAZZ		Balun, BLN-0107TA	AB
FB110	RBLN-0107TAZZ		Balun, BLN-0107TA	AB
MISCELLANEOUS PARTS				
	PSLDM3346TAFW		Shield	AC
	PSLDM3347TAFW		Shield	AC
P101	QPLGN0258REZZ		Plug, 2Pin	AD
SC11	QSOCN1972TAZZ		Socket, 19Pin	AD
SC101	QSOCN0860TAZZ		Socket, 8Pin	AE

Ref. No.	Part No.	★	Description	Code
SC102	QSOCN2471TAZZ		Socket, 24Pin	AE
SC103	QSOCN2072TAZZ		Socket, 20Pin	AD
SC551	QSOCN2071TAZZ		Socket, 20Pin	AD
DUNTK2936QA03 HEAD AMP UNIT				
INTEGRATED CIRCUITS				
IC301	VHiCXA2032Q-1		CXA2032Q, Head Amp Process	AN
IC3701	VHiLB11952W-1		LB11952W	AV
TRANSISTORS				
Q302	VSKTC4075EY-1Y		KTC4075EY	AB
Q307	VSKTC4075EY-1Y		KTC4075EY	AB
Q315	VSKRC654U++-1Y		KRC654U++	AB
Q341	VSKTA1504SY-1Y		KTA1504SY	AB
Q342	VSKTA1504SY-1Y		KTA1504SY	AB
Q343	VSKRC404E++-1Y		KRC404E++	AB
COILS				
L303	VPCCM101K2R1N		Peaking, 100μH	AC
L304	VPCCM470KR95N		Peaking, 47μH	AC
L305	VPCQM101K4R3N		Peaking, 100μH	AB
L341	VPD9M100J1R7N		Peaking, 10μH	AC
L342	VPD9M151J170N		Peaking, 150μH	AC
L3701	VPCCM4R7MR13N		Peaking, 4.7μH	AB
L3702	VPCCM4R7MR13N		Peaking, 4.7μH	AB
CAPACITORS				
C302	VCKY CZ1CB103K	0.01	16V Ceramic	AB
C304	VCKY CZ1CB103K	0.01	16V Ceramic	AB
C305	VCSATA1AJ156M	15	10V Tantalum	AD
C306	VCSATA1AJ156M	15	10V Tantalum	AD
C309	VCKY CZ1CB103K	0.01	16V Ceramic	AB
C310	VCKY CZ1CB103K	0.01	16V Ceramic	AB
C311	VCKY CZ1CB103K	0.01	16V Ceramic	AB
C313	VCKY CZ1CB103K	0.01	16V Ceramic	AB
C314	VCKY CZ1CB103K	0.01	16V Ceramic	AB
C315	VCKY CY1CB104K	0.1	16V Ceramic	AB
C318	VCKY CY1HB103K	0.01	50V Ceramic	AA
C319	VCKY CZ1CB103K	0.01	16V Ceramic	AB
C320	VCKY CZ1CB223K	0.022	16V Ceramic	AC
C321	VCSATA1AJ156M	15	10V Tantalum	AD
C322	VCKY CZ1CB223K	0.022	16V Ceramic	AC
C323	VCKY CZ1CB103K	0.01	16V Ceramic	AB
C324	VCKY CZ1AB104K	0.1	10V Ceramic	AB
C325	VCSATA1AJ156M	15	10V Tantalum	AD
C326	VCKY CY1HB103K	0.01	50V Ceramic	AA
C340	VCCCCZ1HH101J	100p	50V Ceramic	AB
C341	VCCCCZ1HH151J	150p	50V Ceramic	AB
C342	VCCCCZ1HH101J	100p	50V Ceramic	AB
C344	VCKY CY1CB104K	0.1	16V Ceramic	AB
C345	VCKY CZ1CB103K	0.01	16V Ceramic	AB
C347	VCSATA1AJ156M	15	10V Tantalum	AD
C349	VCCCCZ1HH680J	68p	50V Ceramic	AB
C350	VCKY CY1HB103K	0.01	50V Ceramic	AA
C351	VCKY CY1HB103K	0.01	50V Ceramic	AA
C3702	VCKY CZ1EB682K	6800p	25V Ceramic	AB
C3703	VCKY CZ1AB104K	0.1	10V Ceramic	AB
C3704	VCKY CZ1AB104K	0.1	10V Ceramic	AB
C3705	VCKY CZ1HB102K	1000p	50V Ceramic	AB
C3706	VCKY CZ1HB102K	1000p	50V Ceramic	AB
C3707	VCKY CZ1AB104K	0.1	10V Ceramic	AB
C3708	VCKY CZ1AB104K	0.1	10V Ceramic	AB
C3709	VCKY CY1AF105Z	1	10V Ceramic	AC
C3710	VCKY CZ1AB104K	0.1	10V Ceramic	AB
C3711	VCKY CY1AF105Z	1	10V Ceramic	AC
C3712	VCKY CZ1AB104K	0.1	10V Ceramic	AB
C3713	VCKY CZ1AB104K	0.1	10V Ceramic	AB
C3714	VCSATA1CJ106M	10	16V Tantalum	AD
C3715	VCKY CZ1AB104K	0.1	10V Ceramic	AB

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
C3716	VCKYCZ1AB104K	0.1	10V Ceramic	AB	MISCELLANEOUS PARTS				
C3717	VCKYCY1AF105Z	1	10V Ceramic	AC	PSLDM0106AJFW	Shield		AC	
C3718	VCKYCZ1AB104K	0.1	10V Ceramic	AB	CN3701	QSOCN1085TAZZ	Socket, 10Pin		AE
C3719	VCKYCZ1EB682K	6800p	25V Ceramic	AB	CN3702	QSOCN1560TAZZ	Socket, 15Pin		AE
C3720	VCKYCZ1AB104K	0.1	10V Ceramic	AB	CN3703	QSOCN1871TAZZ	Socket, 18Pin		AE
C3721	VCKYCZ1EB682K	6800p	25V Ceramic	AB	SC301	QSOCN0985TAZZ	Socket, 9Pin		AE
C3722	VCKYCZ1EB682K	6800p	25V Ceramic	AB	SC304	QSOCN0671TAZZ	Socket, 6Pin		AC
C3723	VCKYCY1AB474K	0.47	10V Ceramic	AC	SC305	QCNCW7068TAZZ	Connector, 70Pin		AG
C3724	VCKYCY1AB474K	0.47	10V Ceramic	AC	DUNTK2800PM04 CCD UNIT				
C3725	VCKYCY1AF105Z	1	10V Ceramic	AC	INTEGRATED CIRCUIT				
C3726	VCKYCY1AB474K	0.47	10V Ceramic	AC	IC2	VHiBR24C08F-1	BR24C08F, EEP_ROM		AF
C3727	VCCCCZ1HH101J	100p	50V Ceramic	AB	TRANSISTOR				
C3728	VCCCCZ1HH101J	100p	50V Ceramic	AB	Q1	VSKTC4075EY-1Y	KTC4075EY		AB
C3729	VCKYCZ1CB103K	0.01	16V Ceramic	AB	CAPACITORS				
C3730	VCKYCZ1AB473K	0.047	10V Ceramic	AB	C1	VCKYCY1HB103K	0.01 50V Ceramic		AA
C3731	VCKYCZ1EB472K	4700p	25V Ceramic	AB	C3	VCKYTV1EB104K	0.1 25V Ceramic		AB
C3732	VCKYCZ1AB104K	0.1	10V Ceramic	AB	C4	VCCCCY1HH221J	220p 50V Ceramic		AA
C3733	VCSATA1CJ106M	10	16V Tantalum	AD	C5	RC-KZ0070TAZZ	4,7 16V Ceramic		AD
C3734	VCSATA1CJ106M	10	16V Tantalum	AD	C6	VCKYCY1HB103K	0.01 50V Ceramic		AA
RESISTORS					RESISTORS				
R301	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA	R1	VRS-CY1JF105J	1M 1/16W Metal Oxide		AA
R302	VRS-CY1JF273J	27k	1/16W Metal Oxide	AA	R2	VRS-CY1JF000J	0 1/16W Metal Oxide		AA
R303	VRS-CZ1JF152J	1.5k	1/16W Metal Oxide	AA	R3	VRS-CY1JF472J	4.7k 1/16W Metal Oxide		AA
R305	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R4	VRS-CY1JF000J	0 1/16W Metal Oxide		AA
R307	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R5	VRS-CY1JF105J	1M 1/16W Metal Oxide		AA
R308	VRS-CZ1JF392J	3.9k	1/16W Metal Oxide	AA	MISCELLANEOUS PART				
R313	VRS-CZ1JF183J	18k	1/16W Metal Oxide	AA	SC1	QSOCN1986TAZZ	Socket, 19Pin		AF
R316	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA					
R317	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA					
R321	VRS-CZ1JF152J	1.5k	1/16W Metal Oxide	AA					
R323	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA					
R329	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA					
R331	VRS-CZ1JF751J	750	1/16W Metal Oxide	AA					
R335	VRS-CY1JF273J	27k	1/16W Metal Oxide	AA					
R337	VRS-CZ1JF181J	180	1/16W Metal Oxide	AA					
R338	VRS-CZ1JF181J	180	1/16W Metal Oxide	AA					
R340	VRS-CZ1JF680J	68	1/16W Metal Oxide	AB					
R341	VRS-CZ1JF272D	2.7k	1/16W Metal Oxide	AB					
R342	VRS-CZ1JF271J	270	1/16W Metal Oxide	AA					
R343	VRS-CZ1JF221J	220	1/16W Metal Oxide	AA					
R344	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA					
R345	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA					
R359	VRS-CY1JF105J	1M	1/16W Metal Oxide	AA					
R360	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA					
R361	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA					
R362	VRS-CY1JF182F	1.8k	1/16W Metal Oxide	AA					
R3701	VRS-CZ1JF182J	1.8k	1/16W Metal Oxide	AA					
R3702	VRS-CZ1JF122J	1.2k	1/16W Metal Oxide	AA					
R3703	VRS-CZ1JF182J	1.8k	1/16W Metal Oxide	AA					
R3704	VRS-CZ1JF122J	1.2k	1/16W Metal Oxide	AA					
R3705	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA					
R3706	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA					
R3707	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA					
R3708	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA					
R3715	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA					
R3716	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA					
R3717	VRS-TV1JD1R0J	1	1/16W Metal Oxide	AA					
R3718	VRS-TV1JD1R0J	1	1/16W Metal Oxide	AA					
R3719	VRS-TV1JD1R0J	1	1/16W Metal Oxide	AA					
R3720	VRS-TV1JD1R0J	1	1/16W Metal Oxide	AA					
R3721	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA					
R3722	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA					
R3723	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA					
R3724	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA					
R3725	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA					
R3726	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA					
R3727	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA					
R3728	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA					
R3729	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA					
R3731	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA					
R3732	VRS-CZ1JF393J	39k	1/16W Metal Oxide	AA					
R3733	VRS-CZ1JF393J	39k	1/16W Metal Oxide	AA					

Ref. No.	Part No.	★	Description	Code
MECHANISM PARTS				
300	LCHSM0163GEZZ		Main Chassis Ass'y	AW
301	NGERH1280GEZZ		Main Cam	AD
302	NGERH1281GEZZ		Sub-Cam	AD
303	MLEVF0470GEFW		Eject Lever	AD
304	MLEVF0492GEFW		M Function Lever	AF
305	LHLDZ1966GEZZ		L Block Holder	AD
306	NGERW1064GEZZ		Worm Pulley	AC
307	NGERW1065GEZZ		Worm	AD
308	NGERH1282GEZZ		Worm Wheel	AC
309	NGERH1283GEZZ		Lo Relay Gear	AC
310	MARMM0126GEZZ		S Lo Arm Ass'y	AF
311	MARMM0128GEZZ		T Lo Arm Ass'y	AG
312	LANGA0069GEFW		S Lo Arm Retainer	AD
313	PGiDM0146GEZZ		Sup Rail	AD
314	PGiDM0171GEZZ		Tu Rail	AD
315	NGERH1284GEZZ		Sup Lo Gear	AC
316	NGERH1285GEZZ		Tu Lo Gear	AC
317	MSPRD0167GEZZ		S Lo Arm Double-Acting Spring	AE
318	MSPRT0407GEZZ		T Lo Arm Double-Acting Spring	AC
319	MLEVP0310GEZZ		HC Lever Ass'y	AF
321	MSLiF0074GEFW		Ten Arm Operation Lever	AD
322	PGiDM0148GEZZ		Ten Arm Guide	AC
323	NGERH3061GEZZ		Segment Gear	AD
324	MLEVF0472GEZZ		Tu Guide Ass'y	AC
325	PGiDP0027GEZZ		Tu Guide	AE
326	MSPRC0183GEZZ		Tu Guide Spring	AA
327	MSPRC0184GEZZ		Si Roller Spring	AA
328	MSPRC0208GEZZ		Tu Guide Lever Spring	AC
329	CCHSS0052GE01		Slide Chassis Ass'y	AT
330	MLEVF0495GEZZ		Ten Arm Ass'y	AC
331	LBNDK3036GEZZ		Ten Band Ass'y	AF
332	NiDR-0035GEZZ		Swing Gear Ass'y	AF
333	NGERH1286GEZZ		Driving Gear	AC
334	NGERH1287GEZZ		Pulley Gear	AD
335	NPLYV0157GEZZ		Relay Pulley	AD
336	MLEVP0284GEZZ		S Brake	AC
337	NGERH1288GEZZ		Tu Brake Gear	AC
338	MLEVP0285GEZZ		Tu Main Brake	AC
339	MLEVP0286GEZZ		Tu Sub-Brake	AC
340	MSPRD0169GEZZ		Tu Brake Spring	AD
341	LHLDZ2106GEZZ		Light Guide Holder Ass'y	AF
342	LANGG9102GEFW		Down Guide	AF
343	MSPRT0408GEZZ		Tension Spring	AD
344	MSPRD0186GEZZ		S Brake Spring	AD
345	DDRMW0038TEV1		Upper/Lower Drum Ass'y	BK
346	PGiDM0154GEZZ		Tape Guide	AB
348	QBRSK0042GEZZ		Earth Spring	AC
349	PGiDM0182GEZZ		Drum Base	AF
354	MSPRC0209GEZZ		Gr Adjusting Spring	AC
355	LPOLM0058GEZZ		S Pole Base	AK
356	LPOLM0059GEZZ		T Pole Base	AK
357	NDAiV1071GEZZ		Sup Reel Support	AG
358	NDAiV1072GEZZ		Tu Reel Support	AG
359	MLEVF0517GEZZ		Pinch Lever Ass'y	AS
360	NBLTT0027GEZZ		Timing Belt S	AE
361	NBLTT0028GEZZ		Timing Belt L	AE
362	NROLP0127GEZZ		Guide Roller Ass'y	AG
363	NROLP0129GEZZ		Si Roller Ass'y	AG
364	QPWBH5428GEZZ		Mode FPC	AK
365	CPWBF6016GE01		Sensor Ass'y	AT
366	QSW-M0042GEZZ		Recognition SW	AH
367	RDTCH0039GE01		Dew Sensor	AF
368	RMOTV1038GEZZ		Capstan Motor	AX
369	RMOTM1075GEZZ		Load. Motor	AL
370	QSW-R0038GEZZ		Mode SW	AG
372	DUNTK2936QA03		H/A PWB	—
374	TLABH0584GEZZ		Caution Label E	AB
376	PSHEP0013GEZZ		Interruption Sheet	AC
202	LX-BZ3175GEFN		Screw M1.7x4.0	AC
203	LX-BZ3163GEFN		Screw M1.7x2.5	AC

Ref. No.	Part No.	★	Description	Code
204	LX-HZ3074GEFN		Screw M1.7x5.3 S Tight	AA
206	LX-BZ3132GEFF		Screw M1.4x1.5xD3.5	AA
207	LX-BZ3227GEZZ		Screw M1.4x1.5xD4.5	AC
208	LX-HZ3083GEFF		Screw M1.4x2.5 S Tight	AB
209	LX-HZ3077GEFN		Screw M1.4x3.0 S Tight	AA
211	LX-HZ3084GEFF		Screw M1.4x4.0 S Tight	AC
212	LX-HZ3116GEFD		Screw M1.4x3.2 S Tight	AB
213	LX-NZ3066GEFD		Screw M1.4 Nut	AC
214	LX-WZ1076GE02		Washer D0.8xD3.0x0.2t Plastics	AA
215	LX-WZ1075GE02		Washer D2.1xD5.0x0.25t Plastics	AA
216	XWHJZ12-02040		Washer D1.2xD4.0x0.25t Plastics	AC
217	QCNW-1714TAZZ		Ground Lead Wire	AC

CABINET PARTS LIST

1	DCABA6183LM01	V Frame Service	AL
1-2	PSPAG0095TAZZ	VCR Lid Cushion	AA
1-3	TLABH0355TAZZ	Lithium Label	AB
1-4	LHLDB1027TAZZ	Lithium Holder	AD
2	DCABB6266LM01	L Cabinet Service (A111U/AH131U/AH151U)	AS
2	DCABB6267LM01	L Cabinet Service (AH161U)	AS
2-2	QEARP0262TAFW	LCD Earth Panel (A111U/AH131U/AH151U)	AE
2-2	QEARP0264TAFW	LCD Earth Panel (AH161U)	AE
2-3	TLABH0318TAZZ	Turn Caution Label	AB
2-4	GCOVH1251TASA	Jack Cover	AD
2-5	GCOVA1535TAZZ	Remote Control Receptor Cover	AD
2-6	GCOVA1648TAZZ	LED Cover	AC
3	CCABC6090TAKA	Camera Front Cabinet Ass'y(A111U/AH131U)	AP
3	CCABC6104TAK4	Camera Front Cabinet Ass'y(AH151U/AH161U)	AP
3-2	GCOVA1654TASA	Hood Cover	AF
3-3	GCOVA1653TASA	Lens Hood	AK
4	DCABD6104LM05	Camera Rear Cabinet Service(A111U/AH131U)	AP
4	DCABD6105LM05	Camera Rear Cabinet Service(AH151U/AH161U)	AP
4-2	JBTN-0276TASA	Camera Button	AD
5	DFTAC1317LM01	VCR Lid Service(A111U)	AR
5	DFTAC1317LM02	VCR Lid Service(AH131U)	AR
5	DFTAC1317LM03	VCR Lid Service (AH151U)	AR
5	DFTAC1317LM04	VCR Lid Service(AH161U)	AR
5-2	HDECP0106TASA	VCR Lid Decoration Plate (A111U)	AE
5-2	HDECP0103TASA	VCR Lid Decoration Plate (AH131U)	AE
5-2	HDECP0104TASA	VCR Lid Decoration Plate (AH151U)	AE
5-2	HDECP0105TASA	VCR Lid Decoration Plate (AH161U)	AE
5-4	LANGK0400TAFW	Eject Fitting	AD
5-5	MSPRP0219TAFW	VCR Lid Spring	AB
6	DCOVA1647LM07	Camera Side Cover Service AR (A111U/AH131U/AH151U/AH161U)	AR
6	DCOVA1647LM08	Camera Side Cover Service AR (AH151U CANADA)	AR
6-2	NSFTZ0049TAFW	Battery Lid Axle	AC
6-3	MSPRD0050TAFJ	Battery Lid Open/Close Spring	AC
6-4	TLABH0264TAZZ	Recycling Label (A111U/AH131U/AH151U/AH161U)	AB
6-4	TLABH0317TAZZ	IC Label (AH151U CANADA)	AB

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
6-5	GFTAB1066TAKA		Battery Lid	AE	36	RMICC0090TAZZ		Microphone	AN
6-7	MSPRC0102TAFJ		Battery Lock Lever Spring	AA	37	MSPRT0034TAFJ		Lid Lock Spring	AC
6-8	MLEVP0030TASA		Battery Lid Open/Close Lever	AC	38	LHLDZ1454TA00		Lid Lock	AD
6-9	LHLDZ1532TAZZ		Battery Lock Holder	AC	39	NSFTZ0084TAFW		VCR Lid Shaft	AD
6-10	MLEVP0044TASA		Battery Lock Lever	AC	40	PSPAZ0318TAZZ		Microphone Ware Spacer	AD
6-11	MSPRC0101TAFJ		Battery Push-out Spring	AD	41	LHLDZ1450TAZZ		Speaker Holder	AC
6-12	LHLDZ1445TAZZ		Lens Holder	AD	42	VSP0020P-A7WN		Speaker	AM
6-13	LANGK0398TA00		Battery Lid Angle Fitting	AH	43	PSPAG0103TAZZ		Speaker Spacer	AC
6-14	UBNDT0122TAZZ		Hand Strap	AH	46	DCOVA3056LM01		Speaker Cover	AE
7	DCOVA1650LM01		Tilt Service	AP	47	PSPAH0031TAZZ		Wire Holder	AB
7-2	PSPAZ0190TAZZ		Tilt Spacer	AE	48	PSW-Z0342TAZZ		Turn/Eject SW	AH
7-3	GCOVA1537TAKA		Tilt Frame V	AL	49	MLEVP0031TAZZ		Eject Lever	AC
7-4	PSPAZ0189TAZZ		Rotation Spacer	AD	50	LANGK0399TAZZ		Tripod Angle	AH
7-5	LANGH0077TAFW		Stopper Fitting	AD	51	PSHEP0160TAZZ		Microphone Lead Sheet	AC
8	LHLDZ1533TAZZ		LCD Holder(A111U/AH131U/AH151U)	AH	52	RUNTK0354TAZZ		Lithium Battery Unit	AF
8	LHLDZ1544TAZZ		LCD Holder(AH161U)	AF	54	GCOVA1881TAKA		Microphone Cover	AE
9	PSHEP0044TA01		Prism Sheet(A111U/AH131U/AH151U)	AF	55	QPWBH2815TAZZ		CCD FPC	AE
9	PSHEP0093TA01		Prism Sheet(AH161U)	AH	56	CCOVA1652LM01		AV Unit Cover Service	AD
10	PSHEP0045TAZZ		Diffusion Sheet(A111U/AH131U/AH151U)	AD	56-2	HiNDP0214TASA		Video indication Panel	AC
10	PSHEP0090TAZZ		Diffusion Sheet(AH161U)	AD	57	GCOVA1649TASA		Adjust Hole Cover	AC
11	PGIDM0037TAZZ		Light Guide Plate(A111U/AH131U/AH151U)	AG	58	RUNTK0352TAZZ		AV Jack Unit	AS
11	PGIDM0030TAZZ		Light Guide Plate(AH161U)	AH	59	RUNTK0356TAZZ		6-cell Detection Unit	AG
12	PMiR-0021TAZZ		Reflection Sheet(A111U/AH131U/AH151U)	AC	60	PSHEP0159TAZZ		Wire Fix Sheet	AB
12	PMiR-0032TAZZ		Reflection Sheet(AH161U)	AD	62	PSPAZ0331TAZZ		Microphone Spacer	AB
⚠ 13	KLMPV0048TA01		Lamp Inverter Unit (A111U/AH131U/AH151U)	AS	63	TLABH0441TAZZ		Battery Label(A111U/AH131U/AH151U/AH161U)	AC
⚠ 13	KLMPV0049TA01		Lamp Inverter Unit (AH161U)	BA	64	RCORF0047TAZZ		Ferrie Core	AG
14	CPNLC0047LM02		LCD Panel(A111U/AH131U/AH151U)	BZ	a	LX-HZ0018TAFN		M2x6 Tapping, Silver	AA
14	CPNLC0048LM02		LCD Panel(AH161U)	CD	b	LX-HZ0018TAFF		M2x6 Tapping, Black	AA
15	PZETV0343TAZZ		LCD Lead Sheet(A111U/AH131U/AH151U)	AA	c	LX-HZ0045TAFN		M2x4 Tapping, Silver	AA
15	PZETV0370TAZZ		LCD Lead Sheet(AH161U)	AB	d	XiPSF20P04000		M2x4 Small Screw, Black Zinc Plating	AA
17	TLABM2278TAZZ		Model Label(A111U)	AD	e	LX-BZ0191TAFD		M2 Special Screw	AC
17	TLABM2255TAZZ		Model Label(AH131U)	AD	f	XiPSD20P03000		M2x3 Screw	AA
17	TLABM2256TAZZ		Model Label(AH151U)	AD	g	LX-UZ0016TAFD		M2x5 Special Screw	AA
17	TLABM2257TAZZ		Model Label(AH161U)	AD	h	LX-BZ0249TAFD		M2x7 Special Screw	AC
17	TLABM2259TAZZ		Model Label(AH151U CANADA)	AC	i	XiPSN20P04000		M2x4 Small Screw, Silver	AA
17	TLABMA081WJZZ		Model Label(A111U CANADA)	AD	k	LX-HZ0063TAFN		M1.7x6 Tapping, Silver	AA
18	CLNSA0127TA01		Lens Unit	BS					
19	GFTAC1241TASA		Cassette Compartment Cover	AD					
	or								
	GFTAC1361TASA		Cassette Compartment Cover	AD					
20	DUNTK2949QA20		VCR Unit(A111U)	—					
20	DUNTK2949QA21		VCR Unit(AH131U)	—					
20	DUNTK2949QA22		VCR Unit(AH151U)	—					
20	DUNTK2949QA23		VCR Unit(AH161U)	—					
21	DUNTK2934QA04		CAMERA Unit(A111U)	—					
21	DUNTK2934QA07		CAMERA Unit (AH131U/AH151U/AH161U)	—					
22	QPWBH2937TAZZ		Tilt FPC	AQ					
23	LHLDW1038TA00		FPC Holder	AC					
24	RUNTKA010WJZZ		VCR Operation Unit	AW					
25	QTANZ0146TAZZ		Battery Terminal Unit	AK					
26	QSW-Z0285TAZZ		Power/Zoom Unit	AR					
27	LHLDZ1452TAZZ		Power Lock Holder	AC					
28	MSPRC0083TAFJ		Power Lock Spring	AA					
29	JBTN-0277TASA		Power Button	AD					
30	LHLDZ1451TAZZ		Power Holder	AC					
31	JKNBP0152TASA		Power Knob	AD					
32	JKNBP0153TASA		Zoom Knob	AD					
33	LHLDZ1453TASA		Zoom Knob Holder	AD					
34	JKNBP0154TASA		Open Knob	AC					
35	PSPAZ0191TAZZ		Microphone Spacer	AA					

CASSETTE HOUSING PARTS

400	CHLDX3077GE02	Cassette Compartment Ass'y	AY
401	MSPRT0414GEZZ	Up Main Spring	AD

CAMERA UNIT PARTS

1	PCOVM8016TA00	Dustproof Rubber	AC
2	LANGK0324TAFW	CCD Retaining Plate	AG
3	PFILW0060TAZZ	Optical Filter	AS
4(IC1)	VHiRJ2411AB-1	CCD Sensor	BE
5	DUNTK2800PM04	CCD Unit	—
6	LX-HZ0013TAFF	Screw (1.7 X 6)	AA

Ref. No.	Part No.	★	Description	Code
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SUPPLIED ACCESSORIES

ACCESSORIES

	GCOVH1298TASA		Lens Cap (A111U/AH131U/AH151U/ AH161U)	AD
△	QACCD0031TAPZ		AC Cable	AK
	QCNW-1295TAZZ		A/V Cable	AK
	or			
	QCNW-1448TAZZ		A/V Cable	AH
	RRMCG0084TASA		Infrared Remote Control (AH151U/AH161U)	AN
	TiNSE0437TAZZ		Operation Manual (A111U)	AF
	TiNSE0438TAZZ		Operation Manual (AH131U)	AF
	TiNSE0439TAZZ		Operation Manual (AH151U/AH161U)	AF
	TiNSLA011WJZZ		Operation Manual (A111U CANADA)	
	TiNSL0311TAZZ		Operation Manual (AH151U CANADA)	AM
	TCAUH0262TAZZ		Ferrite Core Install Manual (A111U/AH131U/AH151U)	AC
△	UADP-0340TAZZ		AC Adapter	BD
	UBNDS0010TASA		Shoulder Strap	AH
	UBATL0011TAZZ		Lithium Battery	AE
	UBATM0010TA01		Battery(A111U/AH131U/ AH151U/AH161U)	BC
	UBATM0011TA01		Battery(A111U/AH151U CANADA)	BC
	UBATU0247AJZZ		AA Size Battery(x2) (AH151U/AH161U)	AE
	or			
	UBATU0013TAZZ			
	RCORF0038TAZZ		Ferrite Core Large	AK
	RCORF0083CEZZ		Ferrite Core Small	AL

ACCESSORIES

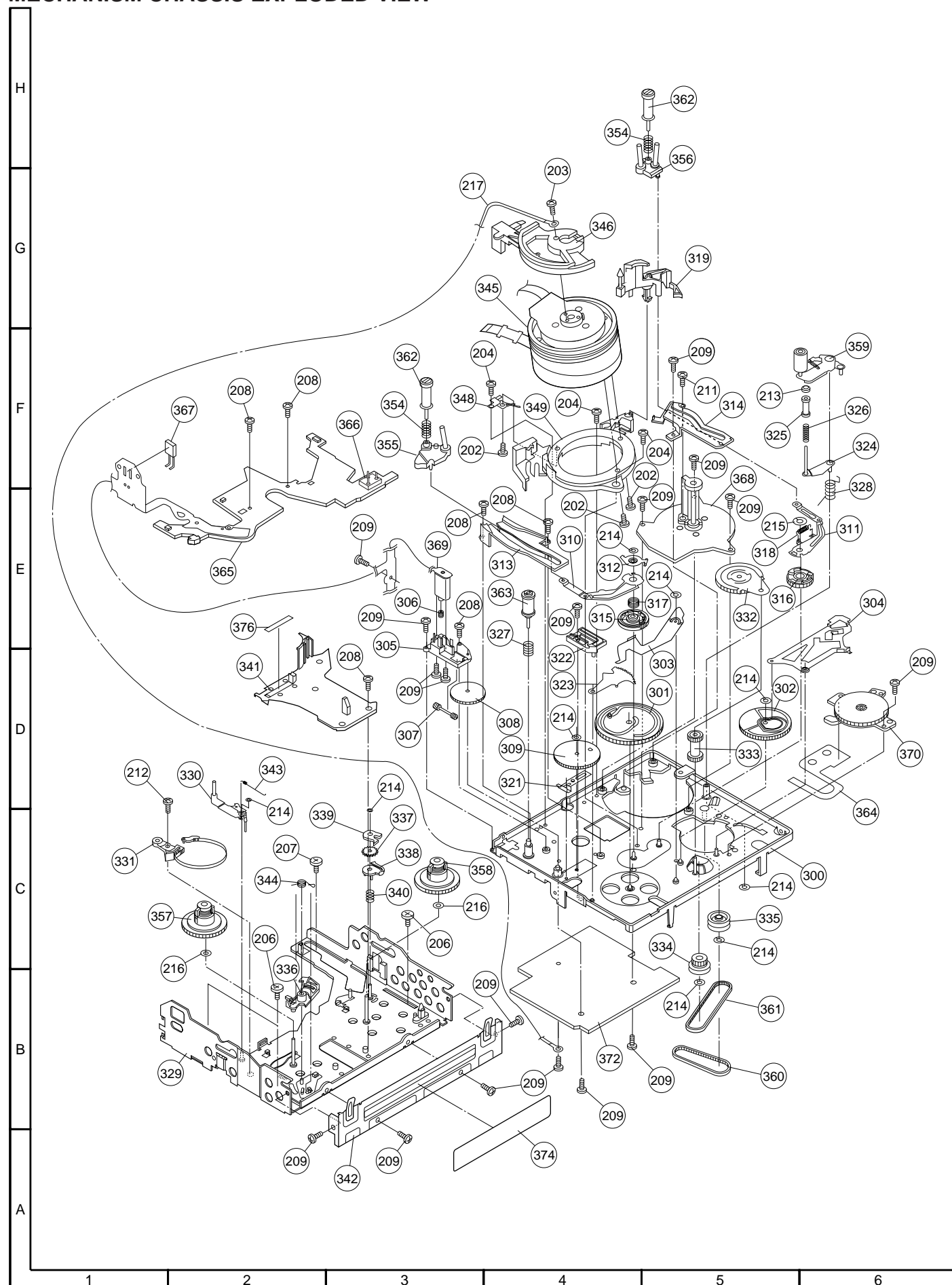
(NOT REPLACEMENT ITEM)

TGANE0071TAZZ	Guarantee Card (A111U/AH131U/AH151U/AH161U)	—
TGANZA001WJZZ	Guarantee Card (A111U/AH151U CANADA)	—
TLABK0002PEZZ	No. Card	—

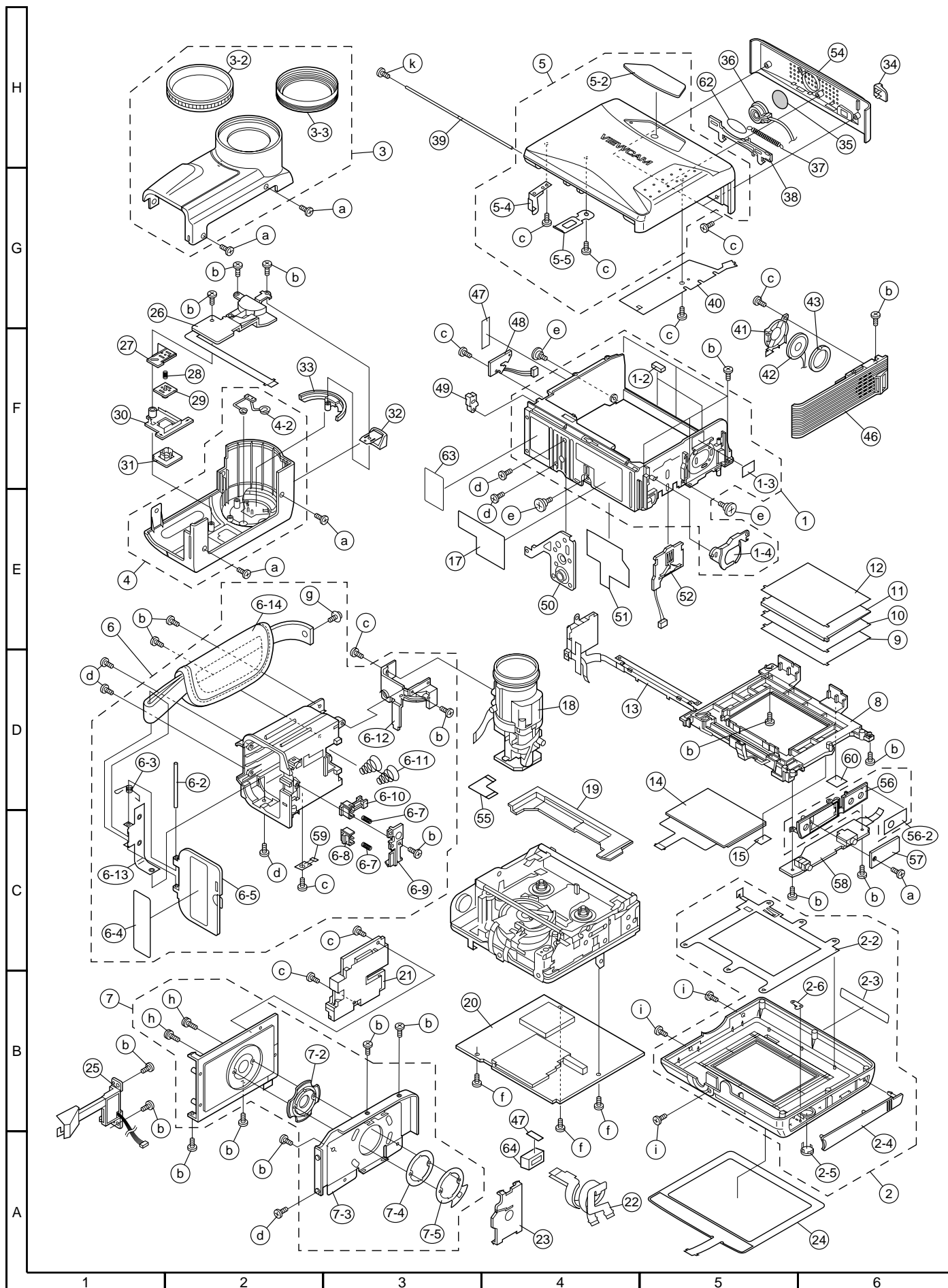
PACKING PARTS (NOT REPLACEMENT ITEM)

SPAKC7671TAZZ	Packing Case(AH131U)	—
SPAKC7672TAZZ	Packing Case(AH151U)	—
SPAKC7673TAZZ	Packing Case(AH161U)	—
SPAKC7689TAZZ	Packing Case(A111U)	—
SPAKP6123TAZZ	Wrapping Paper	—
SPAKP6129TAZZ	HOSO-PP	—
SSAKAA003WJZZ	Polyethylene Bag	—
SPAKA6343TAZZ	Packing ADD.(Bottom)	—
SPAKA6344TAZZ	Packing ADD.(Top)	—
SPAKA6345TAZZ	Packing ADD.	—
SPAKF0266TAZZ	AC Adapter Packing	—

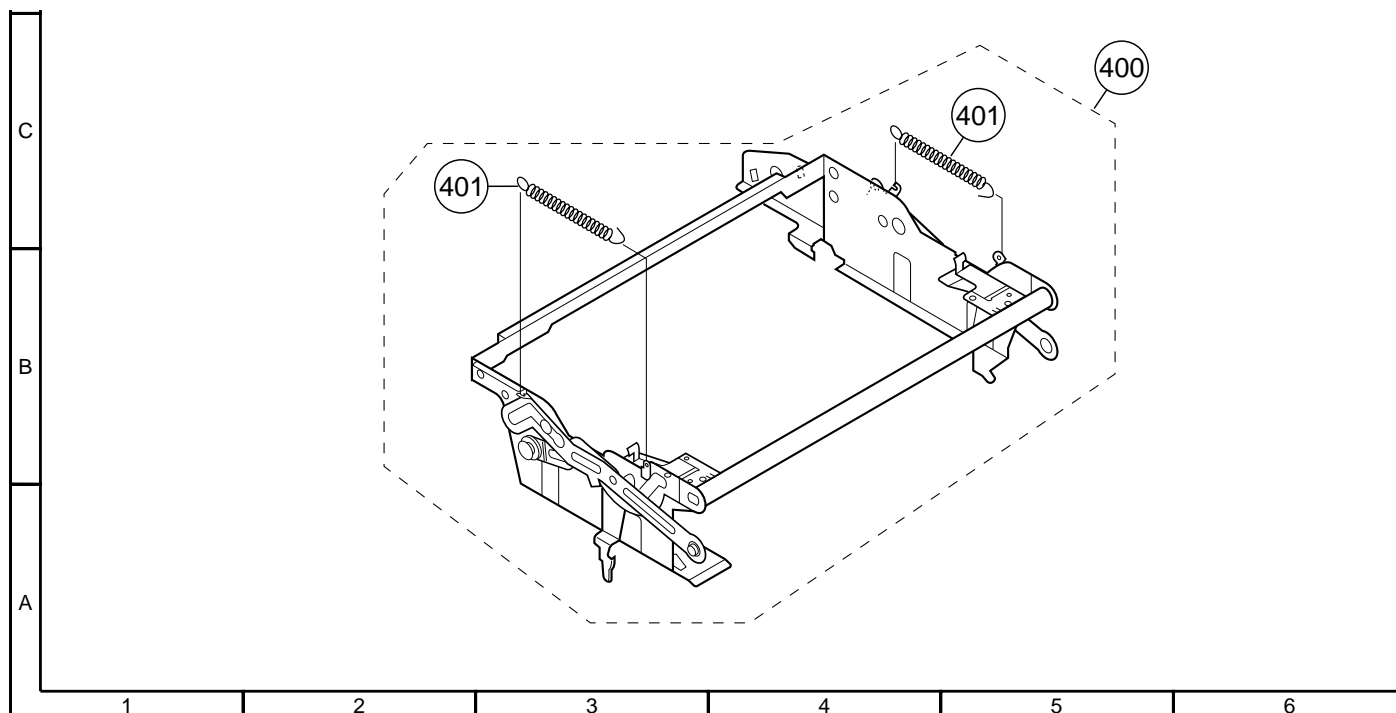
MECHANISM CHASSIS EXPLODED VIEW



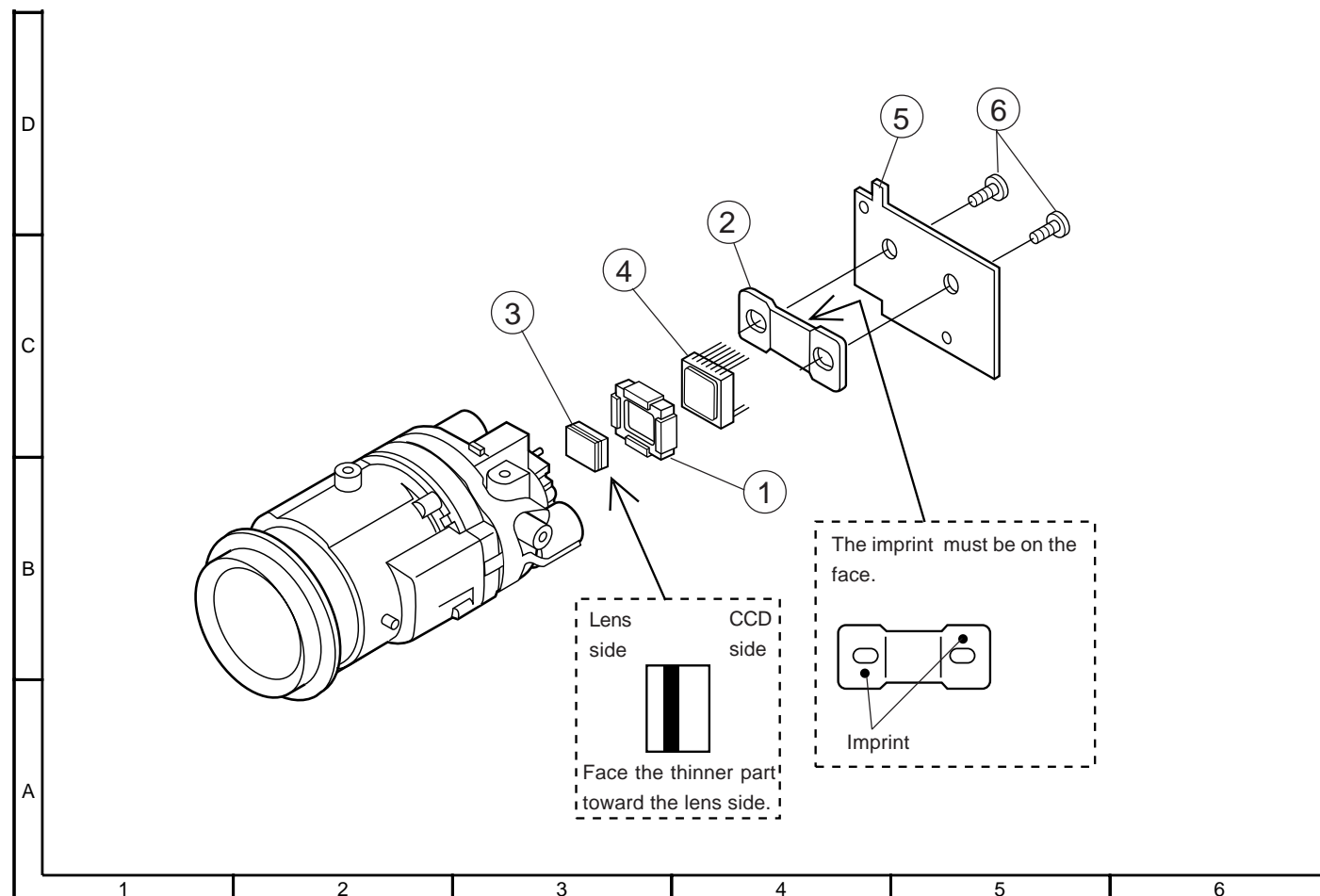
CABINET EXPLODED VIEW



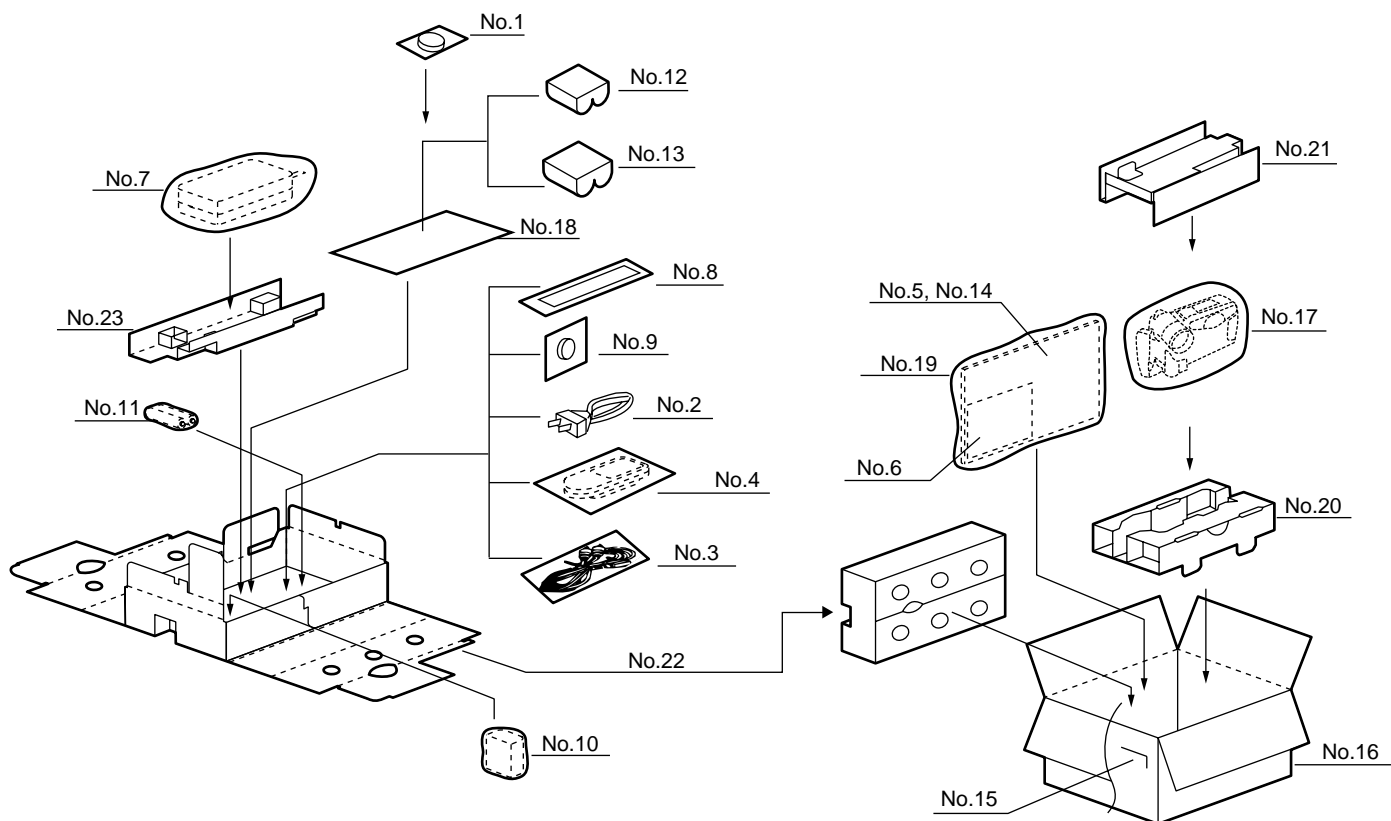
CASSETTE HOUSING CONTROL UNIT EXPLODED VIEW



CAMERA UNIT EXPLODED VIEW



11. PACKING OF THE SET



ACCESSORIES

No.	Model	Parts Code	Description	Remarks
1	A111U/AH131U/ AH151U/AH161U	GCOVH1298TASA	Lens Cap	
2	– Common parts –	QACCD0031TAPZ	AC Cable	⚠
3	– Common parts –	QCNW-1295TAZZ or QCNW-1448TAZZ	A/V Cable	
4	AH151U/AH161U	RRMCG0084TASA	Infrared Remote Control	
5	A111U	TiNSE0437TAZZ	Operation Manual	
	AH131U	TiNSE0438TAZZ	Operation Manual	
	AH151U/AH161U	TiNSE0439TAZZ	Operation Manual	
	A111U CANADA	TiNSLA011WJZZ	Operation Manual	
	AH151U CANADA	TiNSL0311TAZZ	Operation Manual	
6	A111U/AH131U/AH151U	TCAUH0262TAZZ	Ferrite Core Install Manual	
7	– Common parts –	UADP-0340TAZZ	AC Adapter	⚠
8	– Common parts –	UBNDS0010TASA	Shoulder Strap	
9	– Common parts –	UBATL0011TAZZ	Lithium Battery	
10	A111U/AH131U/ AH151U/AH161U	UBATM0010TA01	Battery	
	A111U/AH151U CANADA	UBATM0011TA01	Battery	
11	AH151U/AH161U	UBATU0247AJZZ or UBATU0013TAZZ	AA Size Battery(x2)	
12	– Common parts –	RCORF0038TAZZ	Ferrite Core Large	
13	– Common parts –	RCORF0083CEZZ	Ferrite Core Small	

ACCESSORIES (NOT REPLACEMENT ITEM)

No.	Model	Parts Code	Description	Remarks
14	A111U/AH131U/ AH151U/AH161U	TGANE0071TAZZ	Guarantee Card	★
	A111U/AH151U CANADA	TGANZA001WJZZ	Guarantee Card	★
15	– Common parts –	TLABK0002PEZZ	No. Card	★

PACKING PARTS (NOT REPLACEMENT ITEM)

No.	Model	Parts Code	Description	Remarks
16	AH131U	SPAKC7671TAZZ	Packing Case	★
	AH151U	SPAKC7672TAZZ	Packing Case	★
	AH161U	SPAKC7673TAZZ	Packing Case	★
	A111U	SPAKC7689TAZZ	Packing Case	★
17	– Common parts –	SPAKP6123TAZZ	Wrapping Paper	★
18	– Common parts –	SPAKP6129TAZZ	HOSO-PP	★
19	– Common parts –	SSAKAA003WJZZ	Polyethylene Bag	★
20	– Common parts –	SPAKA6343TAZZ	Packing ADD.(Bottom)	★
21	– Common parts –	SPAKA6344TAZZ	Packing ADD.(Top)	★
22	– Common parts –	SPAKA6345TAZZ	Packing ADD.	★
23	– Common parts –	SPAKF0266TAZZ	AC Adapter Packing	★

MARK ★ Not Replacement Item

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